



香港中文大學理學院

FACULTY OF SCIENCE

THE CHINESE UNIVERSITY OF HONG KONG

Newsletter

Recent Events

Symposium in Honour of the 95th Birthday of Professor Yang Chen Ning

To celebrate the 95th birthday of Professor Yang Chen Ning and pay tribute to his profound contributions to the CUHK, a series of celebration activities were held including a symposium organised by the Department of Physics on 29 September, 2017.

It was our honour to invite Professor Yang to deliver an opening speech for the symposium. Four professors from the Department of Physics, Professor Chu Ming Chung, Professor Li Guang Feng, Professor Yang Sen and Professor Liu Ren Bao introduced Professor Yang's academic achievements in various perspectives and the related technology advancements based on Professor Yang's cutting edge research.

A banquet in celebration of Professor Yang's 95th birthday was also held. Family and friends of Professor Yang, representatives and teachers of CUHK and students from the Department of Physics enjoyed a wonderful night with Professor Yang.



Over 100 public visitors, students and teachers attended the symposium.



Professors from the Department of Physics introduced the achievements of Professor Yang.



Professor Yang gave an inspiring opening speech.

Highlights

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Orientation Day for Undergraduate Admissions



Over 53,000 visitors including secondary students, teachers and parents visited CUHK campus on 21 October, 2017 to get to know more about the admission structure and the study environment of CUHK.

The Faculty set up booths for each unit to introduce their programmes to the public. More than 800 visitors joined the four admission talks arranged by the Faculty. Professor Wong Hoi Ying and Professor Shannon Au Wing Ngor introduced admission criteria, curriculum, exchange opportunities and scholarship information as well as the new research stream “STARS” to the audience during the talk.

This year, we have prepared a newly designed Faculty canvas bag for our potential students who participated in the Faculty admission talks. A brand new admission booklet, introducing programmes, curriculum and different admission schemes, was distributed to visitors.

Visitors were also invited to numbers of laboratory tours, demonstrations and sharing sessions held by various units. Current students also shared their university lives to potential freshmen and their parents.



Visitors gathered at Science Podium for programme information.



More than 800 visitors attended the admission talks held by the Faculty.



Visitors obtained latest admission information at the Faculty booth.



Student representatives shared their university lives to potential students.

Inauguration Ceremony for Undergraduate Students

The Inauguration Ceremony for Undergraduate students was held on 4 September, 2017. More than 200 freshmen attended the ceremony and took opportunity to meet their classmates and teachers.

The event kicked off with an inspiring welcoming speech by the Dean, who encouraged students to take initiative to learn, raise questions and be critical and yet creative. He wished all freshmen cherish every opportunity of learning and training of a thinking mind.

A tea reception was followed for students to get familiar with their peers and teachers. Students had a fun time chit chatting and meeting new friends.



Representatives of the Faculty welcomed the new undergraduates.



Professor Chan King Ming cheered up freshmen at the tea reception.

Elite Student Forum of Shanghai Jiao Tong University 2017

The Faculty was invited to participate in the Elite Student Forum hosted by the Shanghai Jiao Tong University on 28 - 29 October, 2017. Professor Wang Jianfang and three students represented the Faculty to join the forum.

Approximately 200 teachers and elite students from 20 top universities in China were invited to the event. Students involved in campus visit, ice breaking games, seminars, presentations and discussion, which provided opportunities for students to exchange knowledge in different science topics and that ultimately facilitate their learning.



Tong Hoi Sin from the Biochemistry programme (left), Cheng Ka Yan from the Earth System Science programme (middle) and Siew RuiXian from the Department of Physics (right) represented the Faculty to join the Elite Student Forum.

InnoTech Expo 2017

Professor Chu Ka Hou of the School of Life Sciences and Dr Tong Shiu Sing of the Department of Physics delivered interactive science talks at the InnoTech Expo 2017 organised by the Hong Kong Foundation in October at the Hong Kong Convention and Exhibition Centre. This year, the themes of the Expo were Astronomy, Informatics and Ocean.

Professor Chu presented the topic of “The Life of Tree for Decapod Crustaceans”, taking the audience on a journey to his research experience and illustrating the topic of decapod evolution. Dr Tong showcased a couple of engaging experiments introducing some intriguing scientific concepts to the general public.

The Undergraduate and Postgraduate Graduation Ceremonies

Professor Poon Wai Yi, the Pro-Vice-Chancellor officiated the Master's Degree 2016-2017 Graduation Ceremony for the Science Faculty held on 17 November, 2017. It was our honour to invite Professor Samuel Sung Sai Ming to be our guest of honour who shared his experience in research and encouraged students to welcome challenges and opportunities.

Meanwhile, the 83rd Congregation for the Conferment of Degrees, was also grandly held at the University Mall on 16 November, 2017. Over 800 students were conferred the degrees of Bachelor of Science.



Professor Sung congratulated all the graduates and delivered an inspiring address.

Alumni Homecoming Day 2017

The CUHK Alumni Homecoming Day held on 25 November, 2017 attracted over 5,000 alumni to revisit the stunning CUHK campus with their family members. The Faculty showcased some of the precious photos of the distinguished people in the Faculty. Visitors and their children also enjoyed the science games and the mini microscope demonstration at the Faculty booth.



Visitors enjoyed the games at the Alumni Homecoming Day.

Faculty Achievements

Professor Tjoinne Li Guang Feng received 2017-2018 Early Career Award

In recognition of Professor Tjoinne Li Guang Feng's research contribution, he was awarded the 2017-18 Early Career Award for his project "Testing the strong-field dynamics of gravity using gravitational waves emitted by the mergers of compact objects" by the Research Grants Council (RGC).

Professor Li has been involved in LIGO research since 2009 and was a Rubicon Fellow in the LIGO Laboratory at Caltech, one of the two institutes operating LIGO which took up the leadership position in the collaboration. It involved members leading analyses at the core of LIGO and graduates joining top programmes overseas.

Professor Li extended his appreciation to CUHK and his research team members who gave him numerous supports. He hoped his award could invigorate local research in gravitational waves, astronomy, and fundamental physics.



Mr. Kevin Yeung (2nd right), Secretary for Education, congratulated Professor Li (middle) being awarded the Early Career Award.



Professor Benjamin Wah, Chairman of the RGC and Provost of the CUHK, presented the Early Career Award to Professor Li.

Professor Xie Zuwei was elected CAS Member

Professor Xie Zuwei was newly elected Member of the Chinese Academy of Sciences (CAS) in appreciation of his profound achievements and contributions in the field of organic chemistry.

Professor Xie has published over 270 research papers and has received many honours, including the Chinese Chemical Society Award for Outstanding Young Chemist, the Natural Science Award from the Chinese Academy of Sciences (first-class), the State Natural Science Prize (third class), The Young Researcher Award, The Croucher Senior Research Fellowship, the CUHK Research Excellence Award, the State National Science Prize (second-class) and the Chinese Chemical Society Yao-Zeng Huang Award in Organometallic Chemistry. Professor Xie's research interest are organometallic chemistry of f- and d-block transition metal complexes, chemistry of boron clusters, carboranes and metallacarboranes, homogenous catalysis and coordinative unsaturation, small molecule activation and polymer synthesis.

Professor Xie joined the Faculty in 1995, served as the Associate Dean (Research) since 2009 and appointed as Professor of Chemistry in 2006. In 2013, he was appointed as Choh-Ming Li Professor of Chemistry. He is the 4th CAS member of the Faculty after Professor Henry Wong, Professor Wu Chi and Professor Thomas Mak Chung Wai.



Professor Xie Zuwei was elected the CAS member among 157 candidates. Congratulations!

Research Excellence Award 2016-17 & Young Researcher Award 2016-2017

Professor Miao Qian of the Department of Chemistry was awarded the Research Excellence Award 2016-17 in recognition of his remarkable accomplishment in research. His research interest involves organic semiconductor materials and devices, and novel non-planar π -molecules.

Professor Luo Haiwei of the School of Life Sciences was granted the Young Researcher Award 2016 in recognition of his exemplary research achievements in microbial evolution and ecology, genomics, bioinformatics. Congratulations to both of them!



Professor Luo Haiwei was granted the Young Researcher Award 2016.

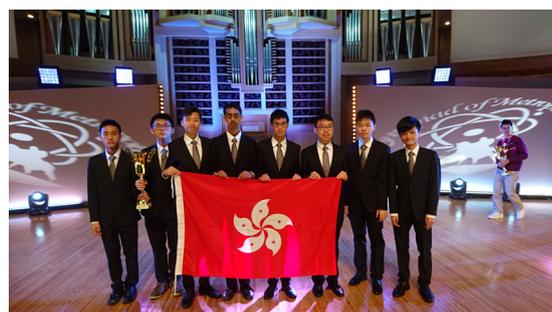


Professor Miao Qian was awarded the Research Excellence Award 2016-2017.

Student Achievement

2nd International Olympiad of Metropolises

Two students, Lee Shun Ming and Leung Yui Hin, from the Enrichment Mathematics stream, represented Hong Kong to participate in the 2nd International Olympiad of Metropolises (IOM 2017) held in Moscow, Russia on 4-9 September, 2017 and won the silver medal of Mathematics.



Two of our students, Lee Sun Ming (2nd from left) and Leung Yui Hin (2nd from right), represented Hong Kong to participate in the 2nd International Olympiad of Metropolises and achieved outstanding results.

Research Achievements

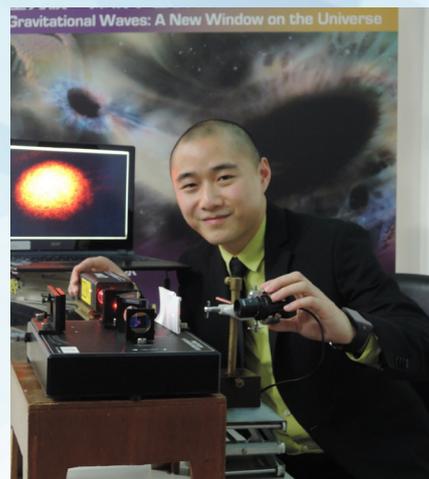
Professor Tjoinne Li Guang Feng Involved in the 2017 Noble Prize Winning Project

The 2017 Nobel Prize in Physics was awarded to Professor Rainer Weiss, Professor Barry Barish and Professor Kip Thorne for their contributions to the discovery of gravitational waves. Professor Tjoinne Li Guang Feng from the Department of Physics, who led the only group in Hong Kong working with LIGO, was involved in the winning project.

Gravitational waves were initially detected in 2015 by the twin LIGO detectors. This discovery concisely confirmed the existence of gravitational waves, which were predicted by Albert Einstein's general theory of relativity a hundred years ago. The detection of gravitational waves opened a new window to the universe and revolutionised the way scientists study the cosmos and its content.

Further Reading:

Three Gravitational Waves Scientists Laureated by Nobel—CUHK LIGO arm shares the excitement



Professor Li's research findings casted a fresh light on the study of universe and its revolution.

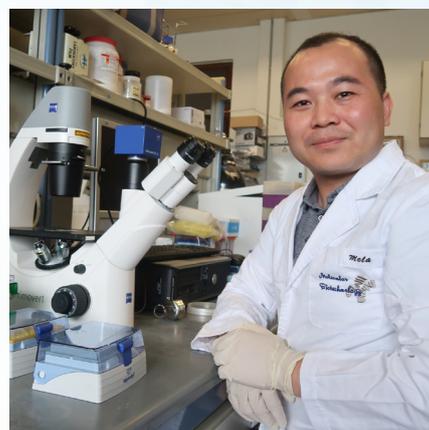
A Stride in Biological Evolution Research

Professor Luo Haiwei of the School of Life Sciences and his research team have overturned the evolutionary pattern of *Prochlorococcus* and other smallest marine bacteria which were well explained by Darwin's theory of biological evolution. These marine bacteria are the most abundant organisms on the planet and are the engines driving global carbon cycles.

Professor Luo and his team also developed a software, available to scientists all around the world, to calculate the evolutionary rate of different types of mutations. This cutting edge research was published in the international journal *Nature Microbiology*.

Further Reading:

Haiwei Luo, Yongjie Huang, Ramunas Stepanauskas, and Jijun Tang. "Excess of non-conservative amino acid changes in marine bacterioplankton lineages with reduced genomes" in the *Nature Microbiology*, 2017; DOI: 10.1038/nmicrobiol.2017.91



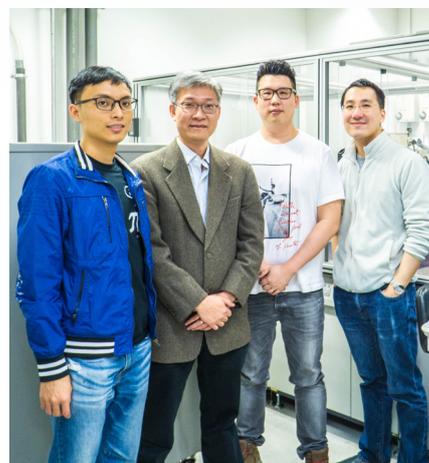
Professor Luo and his research team have achieved a breakthrough on the study of *Prochlorococcus* and other small marine bacteria evolution.

Discover How *Helicobacter Pylori* uses a Toxic Substance to Keep Alive in Human Stomach

Professor Wong Kam Bo of the School of Life Sciences and his research team found *Helicobacter pylori* (*H. pylori*) could survive in the human stomach by using a toxic metal, nickel ions, to activate an enzyme that can neutralize gastric acid. The discovery paved a way to the future development of novel drugs against *H. pylori* infection. Professor Wong added that *H. pylori* have been increasingly resistant to antibiotics thus the team strived to find a new antibiotics target before the problem of resistance became uncontrollable. The research findings were published in the international journal, *Proceedings of the National Academy of Sciences of the USA*.

Further Reading:

Man Hon Yuen, Yu Hang Fong, Yap Shing Nim, Pak Ho Lau and Kam Bo Wong. "Structural insights into how GTP-dependent conformational changes in a metallochaperone UreG facilitate urease maturation" in *Proceedings of the National Academy* 2017; DOI: 10.1073/pnas.1712658114/-/DCSupplemental



Professor Wong (2nd from left) and his team have uncovered the way *Helicobacter Pylori* kept alive in human stomach.

Upcoming Events

The Faculty Exemplary Teaching Award 2017 cum Student Awards Presentation Ceremony

Date: 20 January, 2018 (Saturday)

Time: 10:30am - 2:30pm

Venue: LT1, Yasumoto International Academic Park

Science Career Fair 2018

Date: 7 - 8 March, 2018 (Wednesday and Thursday)

A series of Pre-Fair activities including recruitment talks, CV workshops, alumni sharing sessions will be organised from January to March. Stay tuned with the Faculty website www.sci.cuhk.edu.hk and facebook page CUHKScienceCareerFair

Call for applications

European Commission (EC)/RGC Collaboration Scheme 2017/18 – II (2nd Call)

Internal deadline to ORKTS: 18 December, 2017 (Monday)

Details: please refer to UGC website



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