Mathematics
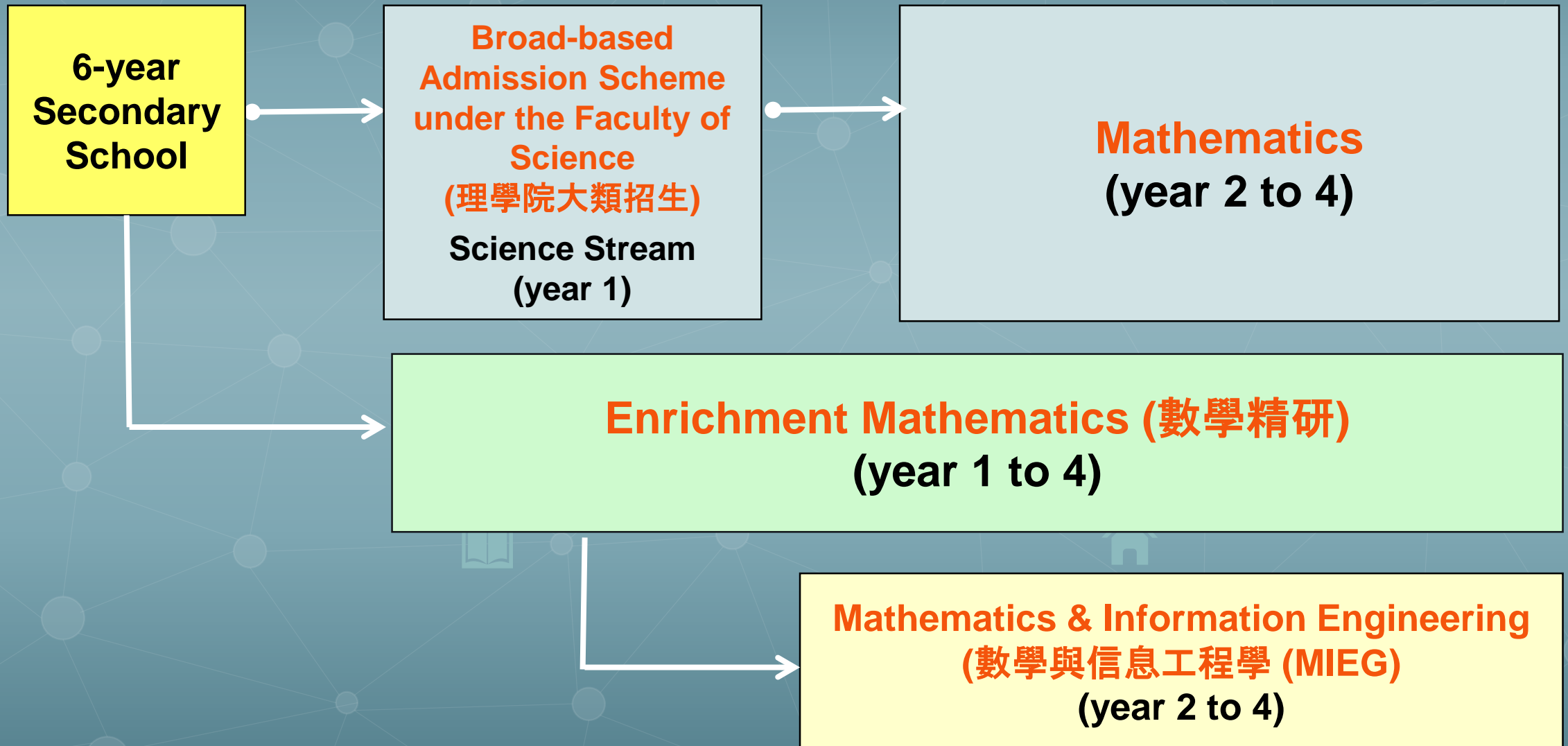
Faculty of Science
The Chinese University of Hong Kong
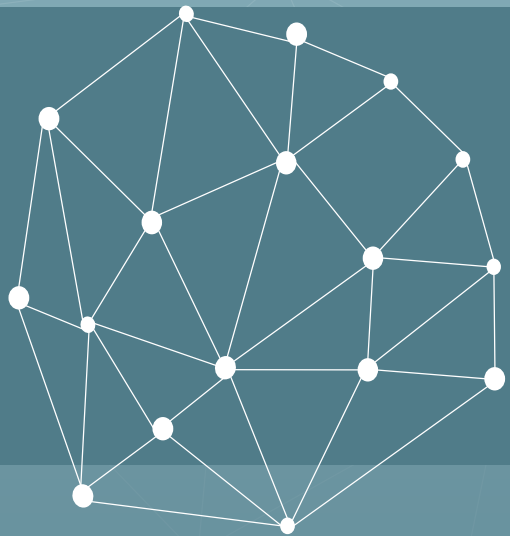
How to major in Mathematics?

4-year Mathematics Major Programmes

6-year Secondary School

Broad-based Admission Scheme under the Faculty of Science (理學院大類招生)
Science Stream (year 1)

Mathematics (year 2 to 4)

Enrichment Mathematics (數學精研) (year 1 to 4)

Mathematics & Information Engineering (數學與信息工程學 (MIEG) (year 2 to 4)

1. Broad-Based Admission Scheme under the Faculty of Science (理學院大類招生)

Suitable for: Students who want to increase the breadth of knowledge

Main feature: High flexibility

Benefits:
- provides students with cross-discipline knowledge
- allows students to master relations and applications of different subjects.

The way to major in math:

At the time of entrance, or at the end of Year 1 or Year 2, student could select Mathematics as Major.

2. Enrichment Mathematics (數學精研)

Suitable for: Students who are interested in mathematical research or wish to delve deeper into mathematical theories

Main feature: Complete required foundational subjects earlier and learn more sophisticated mathematics and research

Benefits:

o Students will acquire wide and deep mathematical knowledge, and be ready for jobs which require strong knowledge and abilities in mathematics

o Students will gain a solid mathematical foundation for future academic research

o After finishing the 1st year, students can switch to **MIEG**

3. Mathematics and Information Engineering 數學與信息工程學 (MIEG)

Suitable for: Students who have strong interests in both math and IT

Main feature: A 4-year interdisciplinary double major programme

Way to enter: After the 1st year in **"Enrichment Mathematics"**, apply for switching to **"MIEG"** from the 2nd year

Career prospect:
Areas related to mathematics and information engineering, e.g., quantitative analysis in finance, banking industry, information management, network systems, security protection and systems management.

Streams

that you can specialize

CUHK Math

Streams

We have designated 7 graduation pathways, or streams, as goals for different students:

01
Computational Big Data Analytics Stream
learn mathematical and computational aspects of Big Data sciences and understand how they can be applied in industry, engineering, finance and other disciplines

02
Computational and Applied Mathematics stream (CAM)
learn how to solve real-life problems by developing strength in mathematics and numerical computation

03
Enrichment Stream in Mathematics (ESM)
better prepared for graduate schools in mathematically related fields

04
Enrichment and Computational and Applied Mathematics Stream (ESM & CAM)
satisfy the requirements of both ESM and CAM streams

CUHK Math

Streams

05   **Mathematics Stream**
benefit from strong quantitative and analytical abilities regardless of future career

06   **Mathematics-Education Stream**
benefit from strong quantitative and analytical abilities for a future career involving mathematics teaching

07   **Mathematics-Multidisciplinary Stream**
suitable for students considering a second major or strong minor in a different subject

CUHK Math

Opportunities

CUHK Math

Scholarships

More than **80 Scholarships** amount to more than
HK$1 million are awarded each year, including

Sir Edward Youde Memorial Scholarship

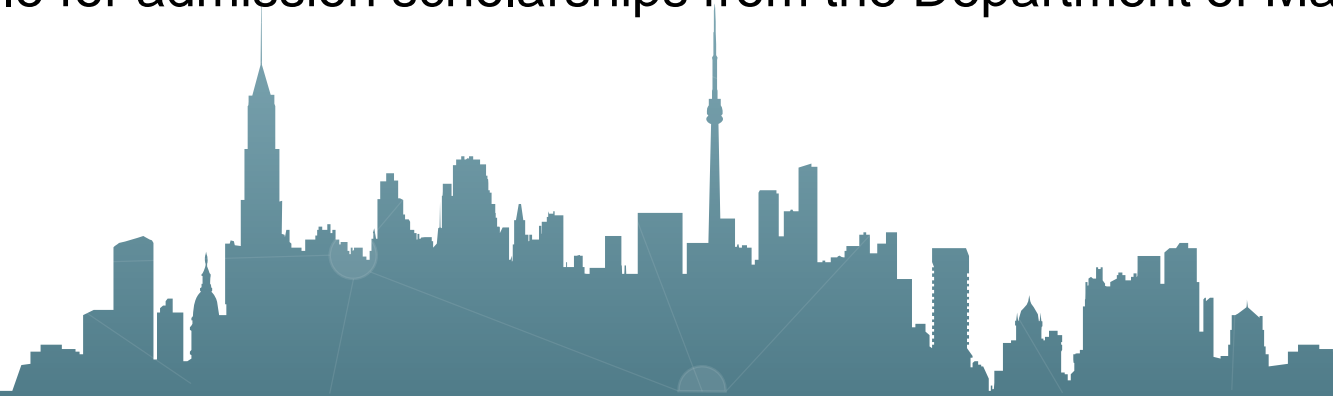**Croucher Foundation Scholarship**

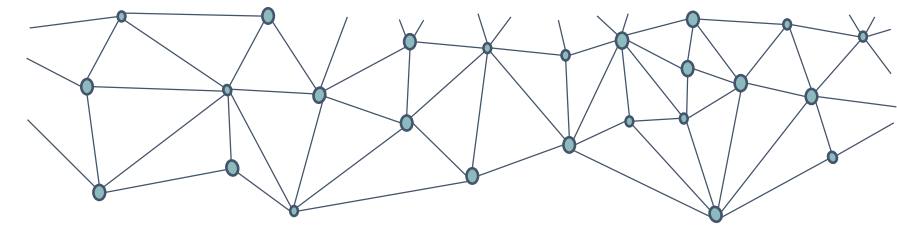**Caltech-Hong Kong Undergraduate Research Fellowship**

Numerous Colleges and Department Scholarships

All students who have attended our admission interview and get admitted to **Enrichment Mathematics** are eligible for admission scholarships from the Department of Mathematics

*CUHK Math*

Summer Exchange

Mathematics Research

Our students go to different universities all over the world to participate in the summer exchange research programme:

- *California Institute of Technology*
- *Cornell University*
- *Johns Hopkins University*
- *Michigan State University*
- *Oak Ridge National Laboratory*
- *UCLA*
- *University of Delaware*
- *University of Waterloo*

University Exchange Programmes

Our students also join semester-long or year-long exchange programmes arranged by colleges and the university

CUHK Math
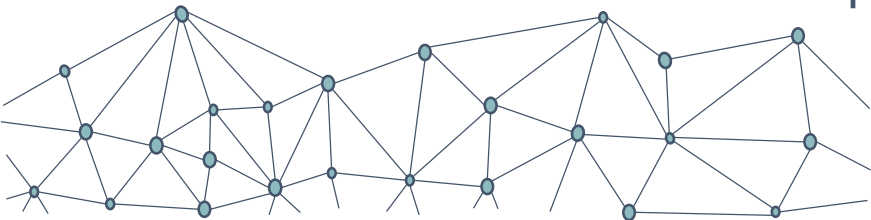
Internships

Educational Internships

- Publishing companies
- High schools
- VTC
- Within the Department of Mathematics CUHK

Industrial Internships

- Banks
- Finance companies
- IT companies

CUHK Math

Career Prospects

- Further Studies
- Education
- Banking and Finance
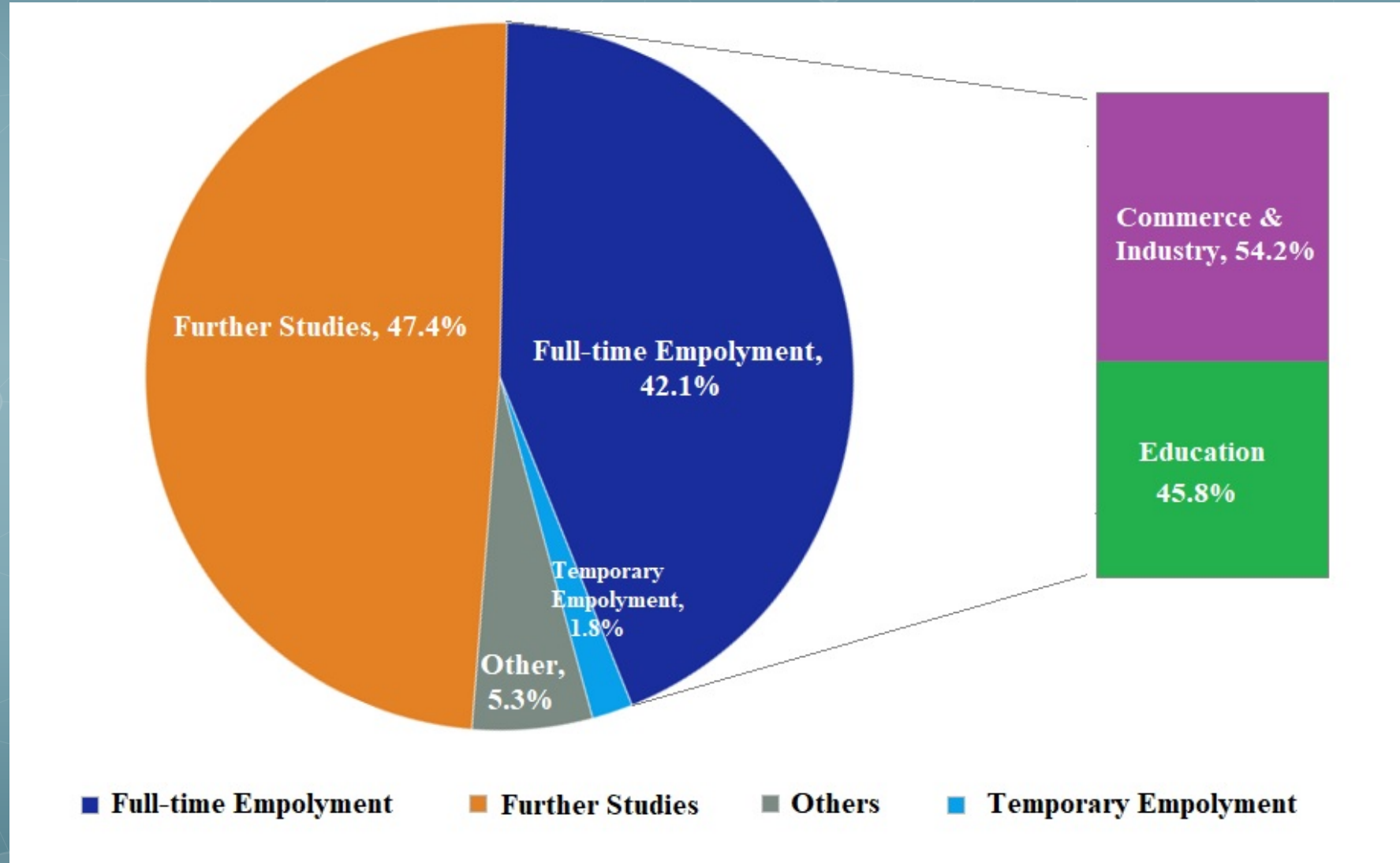- Information Technology
- Engineering

Further Studies

Every year, a high proportion of our graduates pursue further studies. They are *fully supported by foreign or local universities* through fellowships, teaching assistantships and scholarships.

Partial list of overseas universities our students had studied in –

- Harvard University
- Massachusetts Institute of Technology
- University of California, Berkeley
- University of California, Los Angeles
- Stanford University
- University of Pennsylvania
- New York University

- Princeton University
- Columbia University
- Cambridge University
- Oxford University
- California Institute of Technology
- University of Chicago
- Cornell University

CUHK Math

# Employment Status of 2018 Graduates

Full-time Employment, 42.1%
Further Studies, 47.4%
Other, 5.3%
Temporary Empolyment, 1.8%

Commerce & Industry, 54.2%
Education 45.8%

■ Full-time Empolyment ■ Further Studies ■ Others ■ Temporary Empolyment

CUHK Math

Our Alumni

For more than 50 years, CUHK has been known internationally for the training of mathematical talents. Here are some of our outstanding alumni who have made important contributions to Hong Kong and the international community.

Our Alumni - Professor YAU, Shing-Tung
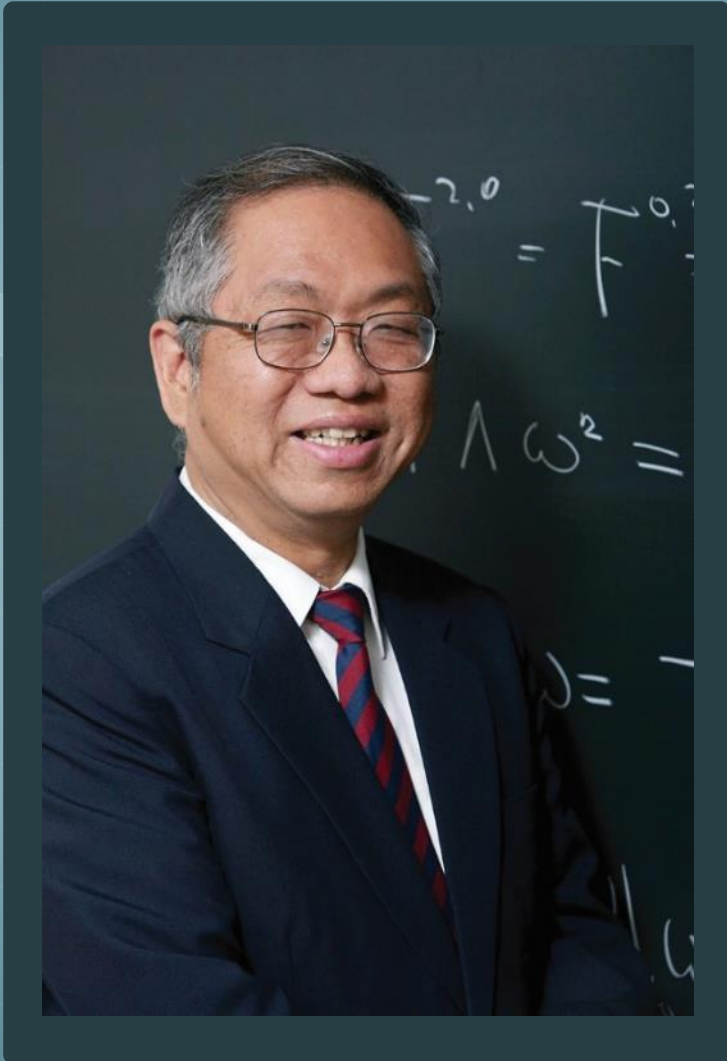
Professor YAU, Shing-Tung

- Professor of Mathematics, Harvard University
- Director, The Institute of Mathematical Sciences (IMS), CUHK
- Director, Yau Mathematical Sciences Center, Tsinghua University
- Member, US National Academy of Sciences
- Member, American Academy of Arts and Sciences
- Foreign Member, Chinese Academy of Sciences

1969	graduated from Department of Mathematics, CUHK
1971	PhD,UC Berkeley under supervision of Prof. CHERN,Shiing-Shen
1982	Fields Medal (Nobel Prize in Mathematics)
1994	Crafoord Prize, Royal Swedish Academy of Sciences
1997	United States National Medal of Sciences
2010	Wolf Prize
2018	Marcel Grossmann Award

Our Alumni

Professor CHAN, Hon-Fu Raymond
Dean of College of Science, City University of Hong Kong

Professor Chan graduated with First Class Honors from the Department of Mathematics at CUHK in 1980. He was the Associate Director of the Institute of Mathematical Sciences (1996-98), the Associate Dean of Science (2004-2009) and the Head of the Mathematics Department (2012-2018). He has retired from CUHK in 2019 as an Emeritus Professor. He is now the Dean of College of Science at City University of Hong Kong.

Mr. LI Sze-Lim
Founder and Chairman of R & F Properties

Mr. Li, 1978 Mathematics alumnus, has been supporting student summer research activities organized by the Department of Mathematics since 2006. He started his real estate business in 1993 and jointly founded R&F Properties with Mr. Zhang Li in August 1994. Mr. Li was elected as the Chairman of R&F Properties in 2001 and the company was listed on the Main Board of the Stock Exchange of Hong Kong in 2005.

Our Alumni

Professor CHEUNG, Yan-Leung Stephen
President, Education University of Hong Kong

Professor Cheung graduated from The Chinese University of Hong Kong in 1982 with a major in Mathematics. He received his PhD in Statistics from the University of Paris VI, and a PhD in Finance from the University of Strathclyde. His research interest is Corporate Finance, Investment and Financial Market Development.

Professor CHEUNG, Kam-Ching Leo
Professor and Chairman, Department of Philosophy, CUHK

Professor Cheung obtained his BSc and MPhil degrees from Department of Mathematics at CUHK in 1986 and 1988 respectively, and gained his PhD at University of Sussex in 1993. His research interest is Wittgenstein's Philosophy, Philosophy of Language, Philosophy of Science, Chinese Philosophy and Comparative Philosophy.

CUHK Math

Our Alumni

Mr. WU Sheng-Chung (2000 Alumni)
Pianist

Mr. Wu graduated from the Mathematics Department CUHK. He then decided to dedicate himself wholly to Music, and to travel to Moscow to pursue perfection. He entered the Moscow P. I. Tchaikovsky Conservatoire and specialized in piano performance. His teachers included world class professors such as N. Starkmann, L. Fichtenholz, M. Lidsky, A. Nasedkin, D. Galynin, and V. Chachava.

Mr. OR Ming-Keung (1999 Alumni)
Scientific Officer, Hong Kong Observatory

Mr. Or graduated from the Department of Mathematics of the Chinese University of Hong Kong, and then obtained a master's degree in applied statistic at Oxford University.

After returning to Hong Kong, he worked in an actuarial company. After the financial turmoil in 2008, he transferred to the Hong Kong Polytechnic University as a lecturer, and later applied for the position of scientific director of the Observatory.

Our Alumni

Mr. LAM Tin-Yin (2006 Alumni)
Cofounder of NEX Team Inc, a mobile AI company in California

Mr. Lam completed his B.Sc. in Mathematics at CUHK and Master degree in Computer Science at University of British Columbia. He then worked as a software engineer / engineering manager at Microsoft and Apple, before co-founding NEX Team Inc. in 2017. HomeCourt is their first product, a mobile AI application that only uses your iPhone camera to track and chart basketball shots, and provides video review and advanced analytics data in real-time.

Miss LI Aggie (2013 Alumni)
Full-time marathon runner, creator and food photographer

Miss Li graduated from the Department of Mathematics of the Chinese University of Hong Kong, and then obtained a master's degree in creative media from the City University of Hong Kong.

In 2017, she published
《我吃素，我跑步！馬拉松少女的素食筆記》

CUHK Math

More Information

Mathematics Department Webpage: http://www.math.cuhk.edu.hk

Science Faculty Webpage: http://www.sci.cuhk.edu.hk