



香港中文大學理學院
FACULTY OF SCIENCE
THE CHINESE UNIVERSITY OF HONG KONG



ZOOM INTO SCIENCE 2021

ONLINE LECTURES

科學無處不在！香港中文大學理學院將於2021年4至5月舉辦「**ZOOM Into Science**」網上講座，帶你從不同角度探索科學世界。

四十五分鐘的講座將透過 Zoom Webinar網上直播，另設問答及簡短入學資訊環節，歡迎各位同學、老師及家長參加。

Science is everywhere! The Faculty of Science of CUHK invites you to "**ZOOM into Science**" with us in April and May 2021 to discover more about the exciting world of science.

The 45-minute online talks will be broadcasted online via Zoom Webinar. The tailor-made talks will be followed by Q&A and brief admission information sessions. Students, teachers, and parents are welcome to join.



免費講座 Free Lectures
網上報名 Online Registration
www.sci.cuhk.edu.hk/zoomlectures/2021

逢星期三及五 Every Wed & Fri

4:30 pm - 5:30 pm

廣東話主講 In Cantonese

21/4
WED 如何成為大富翁
How to Win at Monopoly
薛賢鴻 教授 Prof. Tony SIT
統計學系 Department of Statistics

23/4
FRI 可宜居的星球 — 地球
Understanding Our Habitable Earth
譚志勇 教授 Prof. Francis TAM
地球系統科學課程 Earth System Science Programme

28/4
WED 超新星
Supernova
練立明 博士 Dr. LIN Lap Ming
物理系 Department of Physics

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FRI 漆黑中找理
Seeing You in the Darkness
李紅榮 教授 Prof. LI Hung Wing
化學系 Department of Chemistry

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WED 淺談數學與加密貨幣
From Mathematics to Cryptocurrency
陳啟良 博士 Dr. CHAN Kai Leung
數學系 Department of Mathematics

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FRI 珊瑚復育記
A Journey to Coral Restoration
崔佩怡 教授 Prof. Apple CHUI
生命科學學院 School of Life Sciences

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如何成為大富翁 How to Win at Monopoly

薛賢鴻 教授 Prof. Tony SIT
統計學系 Department of Statistics



大富翁是一個老少咸宜的遊戲，你既可以享受與友同樂的悠閒輕鬆，亦可以體會把對手催逼至破產的緊張刺激。無論那種方式，美麗的馬科夫鏈可以幫助你輕鬆贏得遊戲。在這次講座中，我們將了解到這些鏈是如何存在於日常生活中，從搜索引擎到足球、從金融到棋牌遊戲……以及統計數據如何幫助我們利用馬科夫鏈來發揮優勢。

Depending on how you play it, Monopoly can be a pleasant way to while away the hours with friends or a lesson in cut-throat capitalism as you force your opponents into bankruptcy. Either way, a beautiful mathematical object called a Markov Chain can help you win. In this talk, we will see how these chains appear in countless areas of daily life, from search engines to soccer, from finance to board games and how Statistics can help us use them to our advantage.



23/4

FRI

可宜居的星球 — 地球 Understanding Our Habitable Earth

譚志勇 教授 Prof. Francis TAM
地球系統科學課程 Earth System Science Programme

為什麼地球，且非金星或火星，適宜人類居住？他們的氣候歷史為何如此不同？在本講座中，我們將使用基本物理來解釋這些行星的氣候及其演化，並介紹一些有趣的地球系統科學概念。

What makes our Earth habitable, but not Venus or Mars? Why are their climate histories so different? In this talk, we will use basic Physics to explain these planets' climate states and their evolution, and introduce some interesting Earth System Science concepts.

28/4

WED

超新星 Supernova

練立明 博士 Dr. LIN Lap Ming
物理系 Department of Physics

超新星可以說是宇宙中最壯觀的天文現象。究竟我們對超新星有多認識呢？天文學家又如何從研究超新星而得知宇宙的演化呢？是次的講座將簡單介紹超新星及解答以上問題。

Supernovae are probably the most spectacular events in the Universe. How much do we know about supernovae? How do astronomers learn about the evolution of the Universe by studying supernovae? The speaker will give a brief introduction to supernovae and answer the above questions.



Credit: NASA/CXC/SAO

✉ cpse@cuhk.edu.hk ☎ 3943 1387

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漆黑中找理

Seeing You in the Darkness

李紅榮 教授
化學系

Prof. LI Hung Wing
Department of Chemistry

物質與光相互作用，有些吸收光，而有些則發光。在科學上，熒光透過吸收光的物質而激發出光。在今次的講座中，將介紹不同種類的熒光材料，討論它們在科學、日常生活、醫學和法醫學中的重要作用和應用。

Matters interact with light. Some absorb light while some emit light. In science, fluorescence is the emission of light by a substance that absorbs light and be excited. In this talk, different classes of fluorescent materials will be introduced. Their important roles and applications in science, daily life, medical and forensic sciences will be discussed.



5/5
WED

淺談數學與加密貨幣

From Mathematics to Cryptocurrency

陳啟良 博士
數學系

Dr. CHAN Kai Leung
Department of Mathematics

加密貨幣、比特幣、區塊鏈技術、電子錢包，這些既熟識又陌生的事物，你又知道多少？到底加密貨幣是如何運作？使用加密貨幣是否安全？加密貨幣跟數學有何關係？我們將會探討這些問題並欣賞數學如何運用到生活之中。

Cryptocurrency, Bitcoin, blockchain technology, digital wallet, are terms you have often heard, but do you really understand them? How does cryptocurrency work? Is it secure? How does it relate to mathematics? In this talk, we will discuss all these questions and appreciate how mathematics can be applied to daily life.



7/5
FRI

珊瑚復育記

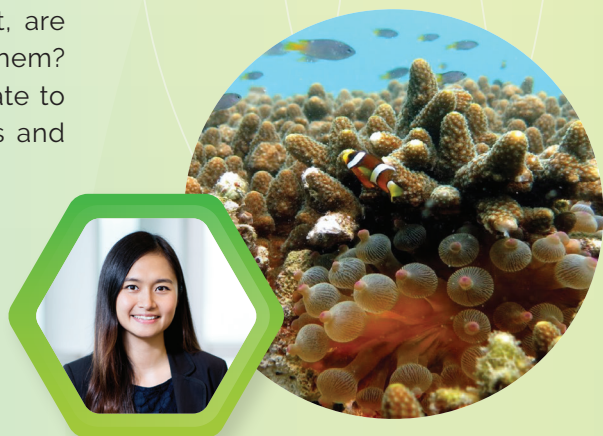
A Journey to Coral Restoration

崔佩怡 教授
生命科學學院

Prof. Apple CHUI
School of Life Sciences

香港有八十四種石珊瑚在境內生長，根據國際標準，品種可算豐富。然而，香港的沿岸城市發展、水質營養化、過度捕撈等問題正威脅著珊瑚的生存。位於香港東北面的吐露港曾擁有非常高的珊瑚覆蓋率，但在八十年代卻因各種污染而數量銳減。吐露港的水質污染雖然在其後的十五年間大為改善，但受影響的珊瑚群落並沒有自然恢復。透過這次講座，大家齊來了解復育研究如何幫助修復及保育香港的珊瑚群落。

Home to eighty-four species of hard corals, Hong Kong's coral diversity is considered quite rich by international standards. Yet there are pressures from coastal development, eutrophication, overfishing etc. Tolo Harbour and Channel in North-eastern Hong Kong, used to support high coverage of corals until the 1980's, were severely affected by extensive pollution impacts, and the rate of coral recovery is slow. For degraded coral communities that cannot recover naturally, active restoration techniques may provide a means of enhancing coral cover and abundance. Let's come and learn how to help restoring and safeguarding Hong Kong coral communities for future generations.



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