Green Chemistry: Applications of Catalysis
綠色化學：催化技術的應用

Dr. CHAN Ka Long Donald
Department of Chemistry
The Chinese University of Hong Kong

Green chemistry, also known as sustainable chemistry, involves the design of chemical products and processes that avoid the creation of hazardous substances and wastes. As an essential tool of green chemistry, catalysis plays a role in both research and chemical industries. Catalysis is not limited to increasing the rate of a reaction. The environment will also be benefited from the reduced use of chemical reagents in catalysed reactions. This lecture covers basic concepts in green chemistry and catalysis. This lecture also discusses how the applications of catalytic reagents contribute to waste minimization and hazard reduction. Students will be able to appreciate the importance of chemical knowledge in the sustainable development of our modern society.

Language of Talk:	English / Cantonese
Suitable Level:	S.4 or above (Prefer students who study Chemistry)
Talk Duration:	45 minutes
Audience Size:	20 or above
Speaker Availability:	December 2021 and January, April - July 2022
Equipment:	PowerPoint projector, microphone

Dr. CHAN Ka Long Donald obtained his B.Sc. and Ph.D. in Chemistry from The Chinese University of Hong Kong in 2012 and 2017 respectively. He subsequently joined the local research and development sectors, working on improvement and commercialization of nano-structured materials and functional polymers. In 2019, he returned to The Chinese University of Hong Kong as a Lecturer. His research interests focus on environmental applications of advanced materials.

陳家朗博士分別於 2012 年及 2017 年取得香港中文大學化學系學士學位及博士學位。他隨後在本地的研發部門工作，致力推動納米結構材料和功能性聚合物的改良及商品化。他於 2019 年重返香港中文大學成為講師。他的研究興趣集中在先進材料於環境領域的應用。

Chemistry in Life – Cosmetic Science
化妝品的化學

Dr. HAU Chun Kit Sam
Department of Chemistry
The Chinese University of Hong Kong

Cosmetic science is the study of the effects that raw materials and mixtures can have on human body parts like hair, skin, lips and nails. In this talk, I will briefly introduce the history of cosmetic products. I will also talk about the formula used when producing cosmetic products, all the common ingredients added and their corresponding functions and roles. Through understanding the production of different cosmetic products, it is hoped that students will raise their awareness when they have to choose a suitable and safe cosmetic or skin care product.

Language of Talk:	English / Cantonese
Suitable Level:	S.3 or above
Talk Duration:	45 minutes
Audience Size:	20 - 40
Speaker Availability:	December 2021 and April - May 2022
Equipment:	PowerPoint projector, microphone

Dr. HAU Chun Kit Sam received his B.Sc. (First Class Honour) in Chemistry at Hong Kong Baptist University in 2005 and obtained his Ph.D. in the area of Organic Synthesis from the Department of Chemistry of The Chinese University of Hong Kong in 2010. He spent four years in the same department as a postdoctoral fellow, working on X-ray Crystallography and Structural Characterization. In 2019, he returned to the Department of Chemistry of The Chinese University of Hong Kong and is currently a Lecturer. His research focuses on crystal engineering and coordination network assembly.

侯俊傑博士於 2005 年本科畢業於香港浸會大學化學系，2010 年於香港中文大學化學系獲得博士學位。隨後他續在香港中文大學從事了四年多博士後工作，致力研究 X 射線晶體學和晶體結構分析。他於 2019 年重返香港中文大學，並擔任講師。他目前的研究方向是晶體工程和多方位配位化合物的自組裝。

The Science and Materials Behind Facemasks
口罩背後隱藏的科學和材料

Professor NGAI To
Department of Chemistry
The Chinese University of Hong Kong

The COVID-19 occurrence has caused a global request for effective measures aimed at mitigating the infection spread. Facemasks have been identified as an essential device for people to protect themselves. The fundamental questions to our mind are: 1) How do facemask and the mask materials protect us from virus; 2) What are the existing materials for masks available in the market; 3) How do they perform and what are their limitations; 4) Can they be reused after disinfection? This talk will attempt to address the abovementioned questions. We will also discuss the environmental implications of widespread mask-wearing and new efforts towards finding more sustainable solutions to support long-term mask-wearing after the end of the pandemic.

Language of Talk:	English / Cantonese / Mandarin
Suitable Level:	S.4 or above
Talk Duration:	45 – 60 minutes
Audience Size:	30 or above
Speaker Availability:	October 2021 - May 2022
Equipment:	PowerPoint with projector, microphone

Professor NGAI To (魏濤) is the Assistant Dean (Research) of the Faculty of Science at The Chinese University of Hong Kong (CUHK), and Fellow of the Royal Society of Chemistry (FRSC). He received his B.Sc. in Chemistry at CUHK in 1999. In 2003, he obtained the Ph.D. at the same university, where he worked on light scattering and polymer interaction in solution. He awarded Croucher Fellowship and moved to BASF (Ludwigshafen, Germany) in 2003 as the Postdoctoral Fellow for two years, working on colloids and surface chemistry. After a short postdoctoral training in the Chemistry Department at the University of Minnesota in 2005, he joined the Chemistry Department at CUHK in 2006 as a Research Assistant Professor. He has been appointed as an Assistant Professor in 2008, and promoted to Associate Professor in 2012. In 2017, he was promoted to Professor. His current research interests center around the colloids, surface chemistry, polymers and soft matter.

Genetic Scissors
基因剪刀

Professor XIA Jiang
Department of Chemistry
The Chinese University of Hong Kong

The Nobel Prize in Chemistry was awarded to two eminent woman scientists in 2020 to honour their work on the development of a method for genome editing. Since the discovery of DNA which revolutionized our understanding of life in 1950s, people have long been dreaming of doing chemical reactions on these genetic materials. A long list of tools to manipulate these molecules has been developed in the past 70 years. The most recent and outstanding one is the "genetic scissor" that can cut and paste DNA in a cell at almost any position. I will introduce this technology and its powerful applications and the controversy during the talk.

Language of Talk:	English
Suitable Level:	S.3 or above
Talk Duration:	30 minutes
Audience Size:	20 or above
Speaker Availability:	October 2021 - July 2022
Equipment:	PowerPoint projector, microphone

Professor XIA Jiang obtained his Ph.D. degrees at Stanford University. He spent two years as a Postdoctoral Scholar at California Institution of Technology. He joined The Chinese University of Hong Kong as an Assistant Professor in the Department of Chemistry in 2009, and he is now a Professor in the Department and in School of Life Sciences (by courtesy). His research interest focuses on the research of protein chemistry, including protein reactions, protein (enzyme) assembly and protein-based therapeutics.

Tropical Cyclone 101
熱帶氣旋 101

Dr. AU YEUNG Yee Man Andie
Earth System Science Programme
The Chinese University of Hong Kong

In the talk we will cover some very basic questions of tropical cyclones (TCs), such as

(1) What defines a TC? Can any type of swirling wind be called a TC?
(2) What is the origin of the air rotation?
(3) What can we see in a weather chart with a TC coming? What kind of information can we get from a chart?
(4) TCs are rare events. When and where could we see them?
(5) More philosophical question: why do they exist?
(6) How do TCs form and decay?
(7) How do scientists study TCs?
(8) How does global warming affect the activity of TCs?
(9) Where can we find real-time practical information of nearby TC?

Language of Talk:	Cantonese
Suitable Level:	S.3 or above
Talk Duration:	45 minutes
Audience Size:	20 or above
Speaker Availability:	October 2021 – July 2022
Equipment:	PowerPoint with projector, microphone

Dr AU-YEUNG Yee Man Andie joined CUHK as an Assistant Lecturer in Earth System Science Programme under the Faculty of Science in 2016. She has been working on atmospheric science research projects and particularly interested in tropical meteorology. The projects she has worked on include exploring the opportunities to use computer simulation models to make typhoon seasonal forecast in the Western North Pacific region and how urbanization (or land surface roughness) could affect TC moving tracks.

歐陽綺雯博士於 2016 年以助理講師身份加入中文大學地球系統科學系。在加入中大前，他一直從事有關大氣科學研究，當中對熱帶氣象學尤其有興趣。相關經驗包括研究用電腦模擬方式去預測西北太平洋颱風季度活動，以及城市化對颱風路徑的潛在影響。

COVID-19's impacts on our air quality?
COVID-19對我們空氣質素的影響?

Professor CHAN Man Nin
Earth System Science Programme
The Chinese University of Hong Kong

As the world is now struggling to contain the COVID-19 pandemic, recent studies have reported the ambient air quality has been improved in many places due to the lockdown of a city and coronavirus-related movement restrictions during the pandemic. In this talk, we will discuss how COVID-19 impacts our air quality.

現在我們正努力遏制COVID-19流行，最近的研究報告稱，由於COVID-19流行期間，城市封鎖和冠狀病毒相關的活動限制，許多地方的空氣質素有所改善。在這個演講中，我們將討論COVID-19如何影響我們的空氣質素。

Language of Talk:	Cantonese
Suitable Level:	S.1 or above
Talk Duration:	45 minutes
Audience Size:	20 or above
Speaker Availability:	October 2021 – July 2022
Equipment:	PowerPoint projector, microphone

Professor CHAN Man Nin has joined the Faculty of Science at The Chinese University of Hong Kong as Associate Professor since 2014. He is now the Programme Director of the Earth System Science Programme. His research area is ambient air pollution, focusing on the sources of particulate matter (PM). His research group applies novel analytical techniques coupled with high resolution mass spectrometers to investigate the composition and chemical transformation of PM in the atmosphere, such that we can better understand their sources and properties. Professor Chan received his Ph.D. in Environmental Science and Engineering at California Institute of Technology. Prior to joining The Chinese University of Hong Kong, he was a Postdoctoral Fellow in the Chemical Science Divisions at Lawrence Berkeley National Laboratory.

陳文年副教授於 2014 年加入香港中文大學理學院，他現為地球系統科學課程主任。他的研究領域是空氣污染，尤其著重大氣中懸浮粒子 (PM) 的來源。他的研究小組採用新穎的化學分析技術和高分辨質譜儀研究懸浮粒子的成分和它在大氣中的化學變化。這使我們能更好地了解懸浮粒子的來源和特性。陳教授於加州理工學院獲得環境科學與工程博士學位，加入香港中文大學之前，他在勞倫斯柏克萊國家實驗室化學科學部門從事博士後研究。

A Virtual Reality (VR) Geo-tour
坐定定地質遊 (VR)

Dr. TAM Pui Yuk Tammy
Earth System Science Programme
The Chinese University of Hong Kong

Under the impact of COVID-19, several educational institutes have transformed traditional geologic field studies into a new learning model. To maintain the geologic training and promote geoscience under the "new norm", the Earth System Science Programme, CUHK has incorporated local famous geologic features into Virtual Reality (VR) geologic tours (geo-tours). This talk will share some of the recent VR geo-tours developed and how students and the general public use these platforms for preparing a geologic field study. More importantly, the talk will demonstrate the way geologists apply interdisciplinary knowledge such as geography, physics, and chemistry in a geologic study.

由於疫情影響不少教育機構，已將傳統的地質野外考察轉變成新的學習模式。為了持續的地質知識訓練和普及科學教育，香港中文大學地球科學課程建立了一系列的「虛擬地質遊 (VR Geo-tours)」，將本地出名的地質特徵展示於程式內。這次演講將會分享，學生及公眾如何利用這些平台自我準備地質考察。更重要的是，這個演講會分享地質學家如何運用各學科的知識，例如地理、物理和化學，作地質野外考察。

Language of Talk:	English / Cantonese
Suitable Level:	S.3 or above
Talk Duration:	45 minutes
Audience Size:	20 or above
Speaker Availability:	October 2021 – July 2022
Equipment:	PowerPoint projector, microphone

Dr. TAM Pui Yuk Tammy joined The Chinese University of Hong Kong in 2016 as a Lecturer in the Earth System Science Programme under Faculty of Science. She is passionate in sharing geology and currently teaching rock-related subjects such as Petrology, Structural Geology, Solid Earth Dynamics in classroom. So as to let student study rocks and associated environments, processes and Earth's tectonic history better, Dr. Tam guides students to explore rocks in the nature of Hong Kong and overseas. Besides teaching, Dr. Tam focuses on developing interactive learning formats to initiate self-learning among students. Dr. Tam graduated from The University of Hong Kong with a Ph.D. in Earth Sciences in 2013. Her

dissertation studied the timing and temperature-and-pressure conditions of metamorphism in the Jiaobei massif in the Jiao-Liao-Ji Belt, North China Craton. In order to understand more about our Earth, she loves to explore various geological features in Hong Kong as well as other parts in the world.

譚佩玉博士於 2016 年以講師身份加入香港中文大學地球系統科學系。她熱衷於分享地質，現時正教授有關學習岩石的科目，包括岩石學、地質結構學和固體地球動態等。為了讓學生能夠更好地研究石頭，並探討相關的環境、過程和地球歷史，譚博士還帶領學生於香港及海外考察。除了教學，譚博士專注建立互動教學，提升學生的自學能力。譚博士畢業於香港大學地球科學系，於 2013 年獲得其博士學位。她的研究論文透過考究膠東-遼寧-吉林活動帶的形成時間和溫壓條件，研究中國山東的地殼變動歷史。為了了解更多我們的地球，她熱衷於發掘香港及世界各地的地質特徵。

"Reading" crystals (AR)
解讀礦物 (AR)

Dr. TAM Pui Yuk Tammy
Earth System Science Programme
The Chinese University of Hong Kong

Minerals display various colors and patterns. Some are regarded as gemstones, but some are not. What are the factors defining the value of a mineral? This talk will introduce a few common minerals' physical and chemical properties, with Augmented Reality (AR) technique applied. These properties and the occurrence of the minerals will explain their values in the world. Besides, some minerals may have no value, and their appearance indicates treasure resources nearby.

礦物有不同的顏色和條紋。有些礦物被視作寶石，但有些並沒有什麼價值。究竟什麼條件決定一隻礦物的價值？這個演講將會分享幾隻常見的礦物，並運用虛擬實景 Augmented Reality (AR) 展示他們的物理化學特質。這些礦物特質和它們的出現，能解釋他們在世界的價值。有些看似沒有價值的礦物，卻指示了寶貴資源的地點。

Language of Talk:	English / Cantonese
Suitable Level:	S.3 or above
Talk Duration:	45 minutes
Audience Size:	20-40
Speaker Availability:	October 2021 – July 2022
Equipment:	PowerPoint projector, microphone

Dr. TAM Pui Yuk Tammy joined The Chinese University of Hong Kong in 2016 as a Lecturer in the Earth System Science Programme under Faculty of Science. She is passionate in sharing geology and currently teaching rock-related subjects such as Petrology, Structural Geology, Solid Earth Dynamics in classroom. So as to let student study rocks and associated environments, processes and Earth's tectonic history better, Dr. Tam guides students to explore rocks in the nature of Hong Kong and overseas. Besides teaching, Dr. Tam focuses on developing interactive learning formats to initiate self-learning among students. Dr. Tam graduated from The University of Hong Kong with a Ph.D. in Earth Sciences in 2013. Her dissertation studied the timing and temperature-and-pressure conditions of metamorphism in the Jiaobei massif in the Jiao-Liao-Ji Belt, North China Craton. In order to understand more about our Earth, she loves to explore various geological features in Hong Kong as well as other parts in the world.

譚佩玉博士於 2016 年以講師身份加入香港中文大學地球系統科學系。她熱衷於分享地質，現時正教授有關學習岩石的科目，包括岩石學、地質結構學和固體地球動態等。為了讓學生能夠更好地研究石頭，並探討相關的環境、過程和地球歷史，譚博士還帶領學生於香港及海外考察。除了教學，譚博士專注建立互動教學，提升學生的自學能力。譚博士畢業於香港大學地球科學系，於 2013 年獲得其博士學位。她的研究論文透過考究膠東-遼寧-吉林活動帶的形成時間和溫壓條件，研究中國山東的地殼變動歷史。為了了解更多我們的地球，她熱衷於發掘香港及世界各地的地質特徵。

Evolution from single molecules to organisms
從簡單分子到有機體的進化

Professor HUI Ho Lam Jerome
School of Life Sciences
The Chinese University of Hong Kong

"How do we become who we are?" This is the question that I always keep asking myself. When one tries to think about the answer of the question, it certainly has more than genuine scientific values for one to explore - it also triggers and promotes our positive attitude towards "life". What is life then? As a scientist and teacher at the university, we try our best every day to get a better understanding of it. But now, one does not need to wait to become a researcher before thinking about it, and here's everyone's opportunity! In this talk, I will take you to the latest development on the understanding of the origin and evolution of life.

Language of Talk:	English / Cantonese
Suitable Level:	S.5 or above
Talk Duration:	45 minutes
Audience Size:	20 or above
Speaker Availability:	March - June 2022 (Afternoon only)
Equipment:	PowerPoint projector, microphone

Professor HUI Ho Lam Jerome (許浩霖) is the Associate Professor of the School of Life Sciences, and Director of the Biology Programme at The Chinese University of Hong Kong. He received his doctoral degree at The University of Oxford, and his current main research interests include insect and arthropod biology, marine biotechnology, molecular ecology, conservation of biodiversity, zoonotic diseases, insect-plant interactions, and animal evolution.

From STEM to STEAM: the journal of my soybean research
從 STEM 到 STEAM: 我的大豆科研之旅

Professor LAM Hon Ming
School of Life Sciences
The Chinese University of Hong Kong

Scientific laboratories and agricultural fields appear to be two different worlds. However, scientists are trying hard to bring scientific knowledge to agriculture. The purpose is to protect global food security by combating the environmental challenges due to climate change, limitation of fresh water, and reduction and deterioration of arable lands. Soybean is an environment-friendly crop which was originated in China over 3000 years ago. After its introduction to the USA in the 18th Century, it has developed into an important cash crop worldwide due to its high nutritional and health values. Moreover, due to the nitrogen fixing ability of soybean, it has become an essential component of sustainable agriculture. Cultivation of soybean could replenish the soil with organic nitrogen. The reduction of nitrogen fertilizer consumption will lessen water and air pollution and hence alleviate the risk on environmental and human health. Researchers in The Chinese University of Hong Kong are using the state-of-the-art genomic technology to obtain information of important soybean genes, with the aim to develop stress tolerant soybeans for sustainable cultivation in her "home", China. Meanwhile, taking a further step to transfer the knowledge and research outputs to regions facing similar challenges, such as South Africa, could better contribute to the global sustainable agriculture and food security.

科學實驗室和農田看似是兩個不同的世界，但是，科學家正在努力將科學知識帶進農業，目標是抗衡因氣候改變、淡水資源短缺和可耕地減少和退化所引致的環境挑戰，以保障全球糧食安全。大豆是對環境有利的作物，在中國源遠流長，有超過三千年的栽種歷史。由於它具有豐富的營養及健康價值，自從十八世紀引入美國後，逐漸成為一種全球重要的經濟作物。此外，由於大豆擁有固氮能力，使它在可持續農業中扮演一個重要角色，種植大豆可以補充土壤中的有機氮。通過減少氮肥使用，可以降低水和空氣中的污染，從而緩解環境和人類健康的風險。香港中文大學的科研人員，利用先進的基因組技術，尋找重要大豆基因訊息，期望能有助推動及強化大豆在它的故鄉中國的可持續種植，並期望於不久將來，把研究成果帶到世界各處面臨同樣挑戰的國家，如南非等，為達致全球可持續農業發展及糧食供應出一分力。

Language of Talk:	English / Cantonese / Mandarin
Suitable Level:	S.1 or above
Talk Duration:	1 hour
Audience Size:	20 or above
Speaker Availability:	January - July 2022 (Afternoon only)
Equipment:	PowerPoint projector, microphone

Grown up in a grass-root family in Hong Kong, Professor LAM Hon Ming obtained his B.Sc. and M.Phil. degrees at The Chinese University of Hong Kong. He then pursued further studies in the Unites States where he obtained his Ph.D. degree. After receiving further scientific training in the States, Professor Lam decided to return and contribute to his alma mater with his passion for research and teaching in 1997. He is now the Director of AoE Center for Genomic Studies on Plant-Environment Interaction for Sustainable Agriculture and Food Security, the Director of the State Key Laboratory of Agrobiotechnology (CUHK), and the Director of the Molecular Biotechnology Programme at The Chinese University of Hong Kong.

Professor Lam is a plant molecular and genomic biologist working on soybean research for more than 2 decades. Through identification and characterization of key genes from elite germplasms that may enhance adaption to biotic and abiotic stresses, Professor Lam envisions to integrate the state-of-the-art technology from academics and the traditional wisdom from breeders for a climate-smart sustainable agriculture. In 2010, he led a large-scale soybean genomic project to complete a whole genome sequence analysis of wild and cultivated soybeans, accomplishing a better understanding on the effect of human selection on the soybean genomes and providing important information and data to soybean research and breeding. The research findings were published as a cover story in the world's renowned scientific journal *Nature Genetics*. In 2013, Professor Lam published a comprehensive review in the renowned medical journal *Lancet* to provide insights on the summary of food supply and food safety issues in China. In 2014, his team successfully identified and cloned a salt tolerance gene from wild soybean, which paved the way to improving agriculture on marginal lands. The research findings were published in an important international scientific journal *Nature Communications*. In 2016, he joined an international research team to publish a perspective paper to the scientific journal *Nature Plants,* discussing on the importance of grain legumes in food and nutritional security. In 2019, his team published the world's first reference genome for wild soybean in *Nature Communications*. His research journey has also extended from laboratory to field. In 2016 and 2017, in collaboration with scientists in Gansu Province, they successfully developed and released three new stress tolerance soybean cultivars that are now used by Gansu farmers.

林漢明教授自幼成長在香港的草根階層家庭，獲香港中文大學頒授學士及碩士學位後，林教授赴美深造，並完成博士學位。在美國接受連串的科研培訓後，他於 1997 年重回母校繼續他所熱中的科研與教學。林教授現任香港研究資助局卓越學科領域植物與環境互作基因組研究中心主任、農業生物技術國家重點實驗室（香港中文大學）主任及中大分子生物技術學課程主任。

林教授是植物分子生物學家，並已從事大豆研究超過20年。他矢志在優質種質資源中鑒定及發掘可增強作物在生物與非生物逆境中生存能力的關鍵基因，以結合學術界的高端科技與傳統育種家的智慧來發展氣候智能的可持續農業。2010 年，林教授領導一項大型的大豆基因組研究項目，透過大規模基因組測序，了解野生及栽培大豆基因組中因人工篩選下所發生的變化，為世界大豆科學研究及育種提供重要的訊息和數據，科研成果成為著名國際科學期刊 *Nature Genetics* 的封面故事。2013 年，林教授在國際知名的醫學期刊 *Lancet* 中發表綜述，探討及總結中國所面對的糧食及食品安全問題。2014 年，林教授團隊成功在野生大豆內獲得耐鹽基因，將可以有助中國邊緣土地上的農業運作，研究成果發表在重要國際科學期刊 *Nature Communications*。2016年，他參與了一個國際科研隊伍，在科學期刊 *Nature Plants* 上發表一篇前瞻論文，討論豆科作物對食物及營養安全的重要性。2019年，他的團隊完成了世界第一個野生大豆參照基因組，並在 *Nature Communications* 上發表。他的研究之旅亦從實驗室走進農田，在2016和2017年，通過與甘肅科學家合作，他們成功研發及分享三種新的耐逆大豆，供甘肅農民使用。

Life underwater: Diversity & Ecology of Marine Invertebrates in Hong Kong
水下生命：香港海洋無脊椎動物多樣性及生態

Professor TSANG Ling Ming
School of Life Sciences
The Chinese University of Hong Kong

Hong Kong harbors rich marine biodiversity, with over 6,000 species recorded in spite of the relatively small area and short coastline. Majority of the species are invertebrates (>80%) and they contain so many beautiful animals that are fascinating and exhibit interesting lifestyle and behaviors. Over the years, my team has attempted to study the ecology and diversity of HK marine invertebrate, with emphasize on mangrove and coral reef associated crustaceans in order to understand their ecology and to identify the biodiversity hotspot for future conservation management. In this talk, I will share some of the recent findings on HK marine biodiversity with you and introduce their behavior that is not well known to the general public. I hope this will convince you that the beauty and value of HK underwater life and engage everyone into the effort for marine conservation sooner but not later.

Language of Talk:	English / Cantonese
Suitable Level:	S.1 or above
Talk Duration:	30-45 minutes
Audience Size:	20 or above
Speaker Availability:	October 2021 - July 2022 (Afternoon only)
Equipment:	PowerPoint projector, microphone

Professor TSANG Ling Ming is an Assistant Professor in the School of Life Sciences, The Chinese University of Hong Kong. He received his B.Sc. degree in Biology from The Chinese University of Hong Kong and then further pursued his MPhil and Ph.D. degree in CUHK. His research interest is biodiversity, ecology and evolution of marine invertebrates. He is particularly keen on identifying the factors that generate the species richness in different animal groups and distribution of biodiversity in different habitat and regions. He hopes this information can help scientists to design appropriate conservation strategies to strike a balance between development and environmental quality.

Appreciation of Euler's formula V-E+F=2
欣賞尤拉公式 V-E+F=2

Dr. CHAN Kai Leung
Department of Mathematics
The Chinese University of Hong Kong

Euler's formula V-E+F=2 is well known to secondary students as it is included in the junior secondary mathematics curriculum. However, to many students, it is nothing but only a counting exercise for finding the number of vertices, edges and faces of a convex polyhedron. If so, what is the significance of Euler's formula? In this talk, we will have a journey from graph theory to topology and appreciate the importance and beauty of Euler's formula.

Language of talk:	Cantonese
Suitable Level:	S.4 or above
Talk Duration:	1 hour
Audience Size:	20 or above
Speaker Availability:	January - July 2022
Equipment:	PowerPoint projector, microphone

Dr. CHAN Kai Leung (陳啟良) obtained his B.Sc., MPhil and PhD degree from the Chinese University of Hong Kong (CUHK). His research interest includes symplectic geometry, toric geometry, mirror symmetry and SYZ mirror symmetry conjecture.

Dr. Chan is currently serving as a Lecturer in the Department of Mathematics at the Chinese University of Hong Kong. He is the course advisor of Mathematics and Maths Plus of the Diploma Yi Jin. He is also one of the lecturers for the Enrichment Programme for Young Mathematics Talents (EPYMT) organized by the Department of Mathematics.

Primes, Number Theory and Algebra
質數、數論與代數

Dr. Charles C. C. LI
Department of Mathematics
The Chinese University of Hong Kong

Prime numbers are those numbers divisible by one and itself only. They are the 'atoms' of numbers. The study of primes has been one of the important human intellectual pursuits since Euclid. Despite the simple looking definition of primes, the primes are shrouded with a lot of mysteries, especially because the primes are miraculously connected to the nature. Some of the mysteries are:

1) How do the primes help in the searching of extra-terrestrials?
2) Why do some cicadas emerge above ground every 13 or 17 years?
3) How are primes used in sending secret information over the internet?
4) Why are they related to a notorious Intel Pentium processor bug that triggered the company to recall all the processors?
5) How prime can be used to create an algebraic structure like real numbers which has addition, multiplication and division?
6) What is modular arithmetic? How it leads to an algebraic structure called "Group"? How this new algebraic structure is related to cryptography?

In this talk, we will discuss theory of primes, its roles number theory and application to algebra.

Language of talk:	Cantonese
Suitable Level:	S.1 or above
Talk Duration:	1 hour
Audience Size:	20 or above
Speaker Availability:	January - July 2022 (Afternoon only)
Equipment:	PowerPoint with projector, microphone

Dr. LI Chun Che Charles (李俊捷) obtained his B.Sc. from The Chinese University of Hong Kong (CUHK) and Ph.D. degree from the University of California at Los Angeles (UCLA). He held research positions at UCLA and Academia Sinica, Taiwan before joining The Chinese University of Hong Kong in 2007. His current research interest includes number theory, automorphic forms and representation theory.

Geometry and Medical Imaging
幾何與醫學圖像

Professor LUI Lok Ming Ronald
Department of Mathematics
The Chinese University of Hong Kong

Geometry is an important topic in mathematics. It has recently attracted much attention and found successful applications in various fields. Applications have been found in medical image analysis, image processing and computer graphics. In particular, in the medical field, neuroscientists often need to locate structural differences between healthy and unhealthy brain structures and hence to detect systematic patterns of alterations in brain diseases. Geometry is able to accurately locate shape abnormality and systematically analyze the complicated anatomical structure for disease analysis. Using it, tools for disease diagnosis, such as Alzheimer's disease, can be developed. In this talk, I will give an overview on the recent advances of computational geometry and its medical applications.

Language of Talk:	English / Cantonese
Suitable Level:	S.4 or above
Talk Duration:	45 minutes
Audience Size:	50
Speaker Availability:	May 2022
Equipment:	PowerPoint projector, microphone

Ronald Lok Ming Lui is a Professor in the Mathematics Department of The Chinese University of Hong Kong (CUHK). He is also serving as the Executive Director of the Center for Mathematical Artificial Intelligence (CMAI), under Department of Mathematics and Institute of Mathematical Sciences at CUHK. Ronald got his PhD in Applied Mathematics at UCLA Math department in June, 2008, under the supervision of Prof. Tony F. Chan. Before joining CUHK, he worked as a Postdoctoral Scholar for 2 years at Harvard Mathematics Department, hosted by Prof. Shing-Tung Yau. The main focus of Ronald's research has been on computational quasi-conformal geometry and their applications to medical imaging, computer vision and computer graphics. The main goal is to develop mathematical theories, models and algorithms to effectively study geometric structures, using quasi-conformal Teichmuller theory as a tool. Over the years, Ronald has been developing computational algorithms for quasiconformal geometry, understanding their theoretical aspects and applying them to real-world applications, including medical imaging, computer visions and 3D geometry processing. He was awarded the Morningside Mathematics (Silver) Medal during the International Congress of Chinese Mathematicians in 2016. In 2018, he was awarded the HKMS Young Scholars Award by the Hong Kong Mathematical Society. In 2019, he was awarded the Vice-Chancellor's Exemplary Teaching Award.

Mathematics of the unknown and the unknowable

Prof. Michael MCBREEN
Department of Mathematics
The Chinese University of Hong Kong

We like to think of mathematics as the art of knowing things exactly. But just as often, mathematics is about what we cannot know – about coming to terms with the limits of knowledge, or slithering our way around them. I'll tell the story of a few surprising such unknowns, starting in ancient Greece and ending in our present day. Along the way we'll see the origins of irrational and imaginary numbers, we'll look at the centuries-long quest to find solutions to polynomial equations, and we'll learn what it means to say a problem is insoluble or undecidable.

Language of talk:	English
Suitable Level:	S.4 or above
Talk Duration:	45 minutes
Audience Size:	20 or above
Speaker Availability:	October 2021 - July 2022 (Morning only)
Equipment:	PowerPoint with projector, microphone

Professor Michael MCBREEN studied Mathematics as an undergraduate at McGill University, and obtained his Ph.D. from Princeton University. His work lies in the field of representation theory and mathematical physics. Professor Mcbreen is an Assistant Professor of Department of Mathematics at The Chinese University of Hong Kong.

Dunbar's number explains humans' friendship circle
鄧巴數解釋了人類的友誼圈

Dr. Wong Chak Fu Jeff
Department of Mathematics
The Chinese University of Hong Kong

The aim of our talk is to discuss the role of Dunbar's 5-15-50-150 model pattern in our personal social networks. This number tells us the number of meaningful and stable relationships that we can have at any one time. We also provide several social network tools for measuring and understanding our close social circle mathematically. Hence, we better understand ourselves and our relationships with family members and friends and our world.

Understanding the content of this talk only requires understanding simple algebra calculations. To know more about my latest and past popular science talks, please visit the link: https://www.math.cuhk.edu.hk/~jwong/pst.html

本次演講將討論鄧巴 5-15-50-150 模型，又名 150 原則，在我們個人社交網絡中的應用。這個數字模型告訴我們如何維持有意義和穩定的關係，以及如何去有效界定朋友圈的朋友數量。本次演講中，我們還會向大家介紹幾類社交網絡相關的應用工具，從數學的視角分析和理解何為聯繫密切的朋友圈。通過這些介紹希望讓大家能夠更好地了解自己以及我們與家人、朋友和世界的關係。

理解本講座的內容只需要具備基本的代數計算知識。要了解有關我最近和過去的科普講座的更多信息，請訪問以下鏈接：
https://www.math.cuhk.edu.hk/~jwong/pst.html

Language of Talk:	English / Cantonese
Suitable Level:	S.3 or above
Talk Duration:	40-50 minutes
Audience Size:	20 - 100
Speaker Availability:	October - December 2021 (Monday and Friday), January - April 2022 (Thursday and Friday) and May - June 2022
Equipment:	PowerPoint projector, microphone

Dr. Jeff C. F. Wong (黃澤富) holds a B.Sc. in Mathematics and a M.Sc. in Geodesy from the University of New Brunswick in Canada and Ph.D. degree in Mathematics from the Chinese University of Hong Kong. His research interests include: Artificial Intelligence, Educational Data Mining and Machine Learning and Quantitative Social Network Analysis. He is currently a Senior Lecturer in the Department of Mathematics at the Chinese University of Hong Kong.

Education? Entertainment? You are never too old to play!
教育？娛樂？寓教於樂！活到老玩到老，玩無止境！

Dr. Wong Chak Fu Jeff
Department of Mathematics
The Chinese University of Hong Kong

Playing games is fun! Are there any theories which influence how we play games? Or can the decisions we make in games be analysed from a mathematical point of view? Game theory deals with the studying and analysis of games. In this talk, we discuss a few well-known game models, such as Prisoner's Dilemma, Chicken game, Stag-Hunt and Deadlock. Then we provide some games that we will play together during the talk and see how mathematics is involved in these games. Finally, we see how these game structures capture the characteristics of real world strategic problems.

Understanding the content of this talk only requires understanding simple algebra calculations. To know more about my latest and past popular science talks, please visit the link: https://www.math.cuhk.edu.hk/~jwong/pst.html

玩遊戲很有趣！你是否想知道有沒有理論在不知不覺中影響著我們玩遊戲的方式？又例如，我們是否可以從數學的角度去分析人們為何會在遊戲中做出不同的決定？博弈論涉及對遊戲、對博弈的研究和分析。在本次講座中，我們會討論一些著名的博弈模型，例如囚徒困境、小雞博弈、獵鹿和死鎖等有趣的問題。此外，我們會提供一些小遊戲供大家體驗，用以探討數學原理是如何參與到這些遊戲中的。最後，我們會探索這些博弈模型在現實世界中的應用。

理解本講座的內容只需要具備基本的代數計算知識。要了解有關我最近和過去的科普講座的更多信息，請訪問以下鏈接：
https://www.math.cuhk.edu.hk/~jwong/pst.html

Language of Talk:	English / Cantonese
Suitable Level:	S.3 or above
Talk Duration:	40-50 minutes
Audience Size:	20 - 100
Speaker Availability:	October - December 2021 (Monday and Friday), January - April 2022 (Thursday and Friday) and May - June 2022
Equipment:	PowerPoint projector, microphone

Dr. Jeff C. F. Wong (黃澤富) holds a B.Sc. in Mathematics and a M.Sc. in Geodesy from the University of New Brunswick in Canada and Ph.D. degree in Mathematics from the Chinese University of Hong Kong. His research interests include: Artificial Intelligence, Educational Data Mining and Machine Learning and Quantitative Social Network Analysis. He is currently a Senior Lecturer in the Department of Mathematics at the Chinese University of Hong Kong.

Talk on the XOR Calculator using an artificial neural network based algorithms
使用基於人工神經網絡的算法討論 XOR 計算器

Dr. Wong Chak Fu Jeff
Department of Mathematics
The Chinese University of Hong Kong

As we all know, according to Boolean logic, especially in duality calculation, there are operators such as AND, OR, NOT AND, NOT OR, XOR (Exclusive OR) and NOT XOR, and only XOR and NOT XOR are non-linearly separability. To materialize and construct the two operators in a Neural Network has been a tough nut to crack. An artificial Neural Network constructed by human beings based on knowledge of the Neural Networks of their brains is a functional Neural Network, which is an information handling system that resembles the structure and functions of the human brain. In this talk, problems of linear separability and non-linear separability are solved by Multi-layer Neural Networks. In particular, our home-made XOR calculator provides an internet platform for users working to find solutions for non-linearly separable problems directly. Most importantly, we pave the way for the users who develop their own Neural Network training models for years to come.

Understanding the content of this talk only requires understanding simple algebra calculations. To know more about my latest and past popular science talks, please visit the link: https://www.math.cuhk.edu.hk/~jwong/pst.html

眾所周知，根據布爾邏輯，特別是在二元計算中，有 AND、OR、NOT AND、NOT OR、XOR(Exclusive OR)和 NOT XOR 等運算符，只有 XOR 和 NOT XOR 是非線性分離的。要在神經網絡中構建這兩個運算符，一直是一個難題。人類根據自己大腦的神經網絡知識構建的人工神經網絡是一種功能神經網絡，它是一種類似於人腦結構和功能的信息處理系統。在本講座中，我們將使用多層神經網絡解決了線性可分離性和非線性可分離性的問題。特別是我們自製的 XOR 計算器，為用戶提供一個直接尋找非線性可分離問題解決方案的互聯網平台。更重要的是，我們為用戶在未來幾年開發自己的神經網絡訓練模型鋪平了道路。

理解本講座的內容只需要具備基本的代數計算知識。要了解有關我最近和過去的科普講座的更多信息，請訪問以下鏈接：
https://www.math.cuhk.edu.hk/~jwong/pst.html

Language of Talk:	English / Cantonese
Suitable Level:	S.3 or above
Talk Duration:	40-50 minutes
Audience Size:	20 - 100
Speaker Availability:	October - December 2021 (Monday and Friday), January - April 2022 (Thursday and Friday) and May - June 2022
Equipment:	PowerPoint projector, microphone

Dr. Jeff C. F. Wong (黃澤富) holds a B.Sc. in Mathematics and a M.Sc. in Geodesy from the University of New Brunswick in Canada and Ph.D. degree in Mathematics from the Chinese University of Hong Kong. His research interests include: Artificial Intelligence, Educational Data Mining and Machine Learning and Quantitative Social Network Analysis. He is currently a Senior Lecturer in the Department of Mathematics at the Chinese University of Hong Kong.

The Swan Song of Star
星之挽歌

Dr. LEUNG Po Kin
Department of Physics
The Chinese University of Hong Kong

To us, the Sun seems to be always there shining upon the Earth, and will always be there in the future. We seldom think that the Sun or other stars have birth and death. Nevertheless, the death of some stars is one of the most spectacular phenomena in the universe, and the process is highly related to the existence of human. Let us spend some time to discuss the final fate of stars and how it is related to us.

對我們來說，太陽好像一直都在照耀着地球，而在遙遠的將來都會繼續存在。我們很少想到太陽和其他恆星都有出生和死亡。但原來一些恆星的死亡是宇宙其中一個最壯觀的現象，而且更和我們的存在息息相關。讓我們花些時間來討論恆星的結局和它與我們的關係。

Language of Talk:	English / Cantonese
Suitable Level:	S.4 or above
Talk Duration:	45-60 minutes
Audience Size:	20 or above
Speaker Availability:	October - December 2021 (Monday to Tuesday Morning only, Friday Afternoon only) and January - May 2022 (Monday and Friday)
Equipment:	PowerPoint projector, microphone

Dr. LEUNG Po Kin got his Bachelor and Master's degrees from the Department of Physics at The Chinese University of Hong Kong, and his Ph.D. degree in Astronomy from University of Illinois at Urbana-Champaign. He joined University of California as researcher afterwards. Currently, Dr. Leung is a Lecturer in the Department of Physics at The Chinese University of Hong Kong.

梁寶建博士畢業於香港中文大學物理系，其後在美國伊利諾伊大學香檳分校取得天文學哲學博士學位。隨後他曾在加州大學作研究員，現為香港中文大學物理系講師。

The Origin of the Universe
宇宙的起源

Dr. LEUNG Po Kin
Department of Physics
The Chinese University of Hong Kong

A lot of people know that the universe started with a bang. At least the scientists and the TV sitcom say so. Not many people however really understand what the Big Bang Theory means, let alone its relationship with us. In this talk, we will discuss the scientific knowledge about the origin of the universe, and how it developed into the current understanding. Let us take a tour back to the beginning of the universe.

很多人知道宇宙在大爆炸開始 —— 畢竟科學家和電視劇都是這樣說的。但很少人真正明白大爆炸理論，更遑論這理論和我們的關係。在這個講座裏，我們會討論宇宙起源的科學理論，以及我們如何獲得現有的知識。讓我們作一次時光之旅，一起回到宇宙的起點。

Language of Talk:	Cantonese
Suitable Level:	S.4 or above
Talk Duration:	45-60 minutes
Audience Size:	20 or above
Speaker Availability:	October - December 2021 (Monday to Tuesday Morning only, Friday Afternoon only) and January - May 2022 (Monday and Friday)
Equipment:	PowerPoint projector, microphone

Dr. LEUNG Po Kin got his Bachelor and Master's degrees from the Department of Physics at The Chinese University of Hong Kong, and his Ph.D. degree in Astronomy from University of Illinois at Urbana-Champaign. He joined University of California as researcher afterwards. Currently, Dr. Leung is a Lecturer in the Department of Physics at The Chinese University of Hong Kong.

梁寶建博士畢業於香港中文大學物理系，其後在美國伊利諾伊大學香檳分校取得天文學哲學博士學位。隨後他曾在加州大學作研究員，現為香港中文大學物理系講師。

Hunt for Life in the Universe
尋找外星生命

Dr. LEUNG Po Kin
Department of Physics
The Chinese University of Hong Kong

Life is an unsolved mystery. We still do not know the limitation of life, or even the exact definition of life. A way to go forward is to find other examples of lives, other than the familiar ones on Earth. Only then we can begin to learn about the similarity and difference of different types of lives, and even understand how life came into existence on Earth.

On the near side, scientists now have evidence of life-favorable condition on some planets and satellites in the Solar System. On the far side, the advance in astronomical observation has allowed us to discover more than 4000 exoplanets so far. Some of them are in the habitable zone, in which the temperature is moderate and liquid water can exist on the surface of a planet. In this talk, we will discuss the findings and the implications.

生命是一個未解之謎。我們至今仍然不知道生命的局限性，甚至不知道如何確切地定義生命。要真正了解生命，其中一個可能的途徑是找到我們所熟悉的地球生命以外的其他生命。只有這樣，我們才能開始明白不同類型生命的異同，甚至了解生命是如何在地球上誕生的。

在我們的附近地方，科學家現在有證據證明太陽系中的一些行星和衛星處在有利於維持生命的狀態。 而在較遙遠的地方，隨着天文觀測的發展，迄今我們已發現超過 4000 顆系外行星。其中一些更位於溫度適中的適居帶，以致液態水有可能存在於行星表面。在是次講座中，我們將會討論這些研究結果及其意義。

Language of Talk:	Cantonese
Suitable Level:	S.1 or above
Talk Duration:	45-60 minutes
Audience Size:	20 or above
Speaker Availability:	October - December 2021 (Monday to Tuesday Morning only, Friday Afternoon only) and January - May 2022 (Monday and Friday)
Equipment:	PowerPoint projector, microphone

Dr. LEUNG Po Kin got his Bachelor and Master's degrees from the Department of Physics at The Chinese University of Hong Kong, and his Ph.D. degree in Astronomy from University of Illinois at Urbana-Champaign. He joined University of California as researcher afterwards. Currently, Dr. Leung is a Lecturer in the Department of Physics at The Chinese University of Hong Kong.

梁寶建博士畢業於香港中文大學物理系，其後在美國伊利諾伊大學香檳分校取得天文學哲學博士學位。隨後他曾在加州大學作研究員，現為香港中文大學物理系講師。

Neutron star: A giant atomic nucleus
中子星：巨大的原子核

Dr. LIN Lap Ming
Department of Physics
The Chinese University of Hong Kong

中子星的表面面積跟香港大小相約，但質量可以重達兩個太陽質量，以致它的密度高於原子核，成為宇宙中已知密度最高的天體。中子星的研究涉及很多如何在極端情況下應用現代物理學的學問。雙中子星合併事件更是重要的電磁輻射和重力波來源。這講座旨在淺談中子星物理和當今前沿的研究課題。

Language of Talk:	Cantonese
Suitable Level:	S.4 or above
Talk Duration:	45 minutes
Audience Size:	20 or above
Speaker Availability:	November - December 2021 and April - July 2022
Equipment:	PowerPoint projector, microphone

練立明博士畢業於香港中文大學物理系，其後在美國聖路易斯華盛頓大學取得物理學哲學博士學位。畢業後，他在巴黎天文台擔任研究員，現為香港中文大學物理系講師。其研究興趣包括理論天文物理及廣義相對論。

Exploring the World of Biological Macromolecules with Computer Modeling
以電腦模擬探索生物大分子的世界

Professor WANG Yi
Department of Physics
The Chinese University of Hong Kong

Biomolecules like proteins and nucleic acids, which are typically on the nanometer length scale, are traditionally studied via advanced microscopes. Computer modeling is now increasingly used in scientific exploration of the bimolecular world, acting essentially as a computational microscope. In recent years, the advancement in GPU technology further enabled scientists to use devices initially designed for the gaming industry in scientific computations. In this talk, we will explore how the progress in computer hardware and software is helping scientists in their research of various biomolecules.

科學家經常使用顯微鏡來探索生物分子的世界。這是因為諸如蛋白質、核酸之類的生物分子的大小通常僅為數個納米。不過，今天我們亦可以使用電腦來模擬這些生物分子的結構和功能。近年來 GPU 技術的進步更使得為電子遊戲而研發的新一代顯卡也可被使用在科學計算中。讓我們一起來了解一下這些計算機軟硬件的進步是如何幫助科學家探索生物分子的世界。

Language of Talk:	English
Suitable Level:	S.4 or above
Talk Duration:	45 minutes
Audience Size:	20 or above
Speaker Availability:	January - May 2022 (Afternoon only)
Equipment:	PowerPoint projector, microphone

Professor WANG Yi graduated from Department of Biotechnology in Zhejiang University. She then obtained her PhD in Biophysics at University of Illinois, Urbana-Champaign. After her postdoc in University of California San Diego, she joined the Department of Physics at The Chinese University of Hong Kong.

王一博士畢業於浙江大學生物系，其後在美國伊利諾伊大學香檳分校取得生物物理學博士學位。隨後她曾在加州大學作研究員，現為香港中文大學物理系副教授。

Causal Inference: Another You in a Parallel Universe
因果推論：平行世界中的另一個你

Professor CHAN Kin Wai
Department of Statistics
The Chinese University of Hong Kong

Does artificial intelligence improve trading? Does smoking lead to lung cancer? Do human activities cause global warming? Strictly speaking, we never know the answers. It is impossible to know the causal effect of an action to you unless there is another you without taking that action in a parallel universe.

In this talk, I will first present some real-life causal questions, and then prove that intuitive answers to these causal questions are in general wrong. Finally, I will discuss a rigorous statistical framework to give a "viable" solution to this "impossible" task.

Language of Talk:	English / Cantonese
Suitable Level:	S.4 or above
Talk Duration:	45 minutes
Audience Size:	20 or above
Speaker Availability:	October 2021 – July 2022
Equipment:	PowerPoint projector, microphone

Professor CHAN Kin Wai (陳健威) is an Assistant Professor in the Department of Statistics, The Chinese University of Hong Kong. He received his B.Sc. degree in Risk Management Science from The Chinese University of Hong Kong and Ph.D. degree in Statistics from Harvard University. His research interest is statistical inference for dependent data and incomplete data. He is particularly keen on developing elegant statistical theories and creating new methodologies that strike a nice balance between statistical and computational properties.

Application of Statistics in Business
統計在商業之應用

Dr. HO Kwok Wah
Department of Statistics
The Chinese University of Hong Kong

In this era of big data, statistical knowledge is becoming more and more important for companies in different industries. In this talk, I am going to explain two applications of statistics in business. The first one is about how basic statistical theories help insurance companies to determine the premiums of their insurance products. The second one is about how banks can use statistical methods to assess the qualities of potential borrowers so as to make better lending decisions.

Language of Talk:	Cantonese
Suitable Level:	S.5 or above
Talk Duration:	30-45 minutes
Audience Size:	20-50
Speaker Availability:	January – July 2022
Equipment:	PowerPoint projector, microphone

Dr. HO Kwok Wah (何國華) holds B.B.A., B.Sc., M.Phil. and Ph.D. degrees from The Hong Kong University of Science and Technology. Dr. Ho is currently a Lecturer in the Department of Statistics at The Chinese University of Hong Kong. His research interests cover MCMC algorithms, Bayesian statistics, financial time series and credit risk models.

How to win at Monopoly
富翁攻略

Dr. John Alexander WRIGHT
Department of Statistics
The Chinese University of Hong Kong

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.

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。

Language of Talk:	English
Suitable Level:	S.1 or above
Talk Duration:	45 minutes
Audience Size:	20 or above
Speaker Availability:	October 2021 - July 2022
	(Tuesday to Friday Afternoon only)
Equipment:	PowerPoint projector, microphone

Dr. John Alexander WRIGHT (衛約翰) is a Lecturer in the Department of Statistics, The Chinese University of Hong Kong. He received his B.A. in Mathematical Sciences from The University of Oxford, his M.A.St. from The University of Cambridge and his Ph.D. in Mathematics from The University of Hong Kong. His research interests lie in applied probability, especially financial mathematics. With nearly a decade of teaching under his belt, as well as several public outreach events for STEM subjects, he is an experienced educator who is keen to promote statistics to a wider audience.

How to find your Mr/Mrs Right
眾裏尋他/她千百度

Dr. John Alexander WRIGHT
Department of Statistics
The Chinese University of Hong Kong

Your perfect match is out there somewhere – how to find them? As ever, maths and statistics hold the key. In this interactive talk, we will discover how machine learning, Nobel prize winners and secretaries can improve Cupid's aim. We guarantee you will leave with a better chance of finding "The One"!

你的最佳伴侶就在世界的某個角落－如何找到他們呢？一如既往，數學和統計學掌握着問題的關鍵。在這個互動演講中，我們會探索機器學習、諾貝爾獎獲得者以及秘書是怎樣提高愛神之箭的命中率。我們保證，在你離開的時候會更有把握尋找到那個獨一無二的人！

Language of Talk:	English
Suitable Level:	S.1 or above
Talk Duration:	45 minutes
Audience Size:	20 or above
Speaker Availability:	October 2021 - July 2022 (Tuesday to Friday Afternoon only)
Equipment:	PowerPoint projector, microphone

Dr. John Alexander WRIGHT (衛約翰) is a Lecturer in the Department of Statistics, The Chinese University of Hong Kong. He received his B.A. in Mathematical Sciences from The University of Oxford, his M.A.St. from The University of Cambridge and his Ph.D. in Mathematics from The University of Hong Kong. His research interests lie in applied probability, especially financial mathematics. With nearly a decade of teaching under his belt, as well as several public outreach events for STEM subjects, he is an experienced educator who is keen to promote statistics to a wider audience.