





Press Release

Harrow International School Hong Kong Wins Gold Award at the 2023 Hang Lung Mathematics Awards Inheriting a 20-Year Legacy of Excellence and Innovation

(Hong Kong, December 20, 2023) The 2023 Hang Lung Mathematics Awards ("HLMA"), coorganized by Hang Lung Properties Limited ("Hang Lung Properties") and the Hong Kong University of Science and Technology ("HKUST"), announced this year's winners last night. Kyan Ka Hin Cheung and Ethan Jon Yi Soh from Harrow International School Hong Kong received the Gold Award for their research report titled "On the Properties of the Semigroup Generated by the RL Fractional Integral". Chun Hei Mok and Hei Wong from S.K.H. Tsang Shiu Tim Secondary School and Hei Tung Tam from HKUGA College won the Silver Award and the Bronze Award, respectively. They demonstrated exceptional problem-solving abilities and creativity in tackling complex mathematical problems.

The winners received their accolades at the awards ceremony last night with The Hon John KC LEE, The Chief Executive of the Hong Kong Special Administrative Region, delivered opening remarks virtually. The occasion also marked the beginning of a series of celebrations commemorating HLMA's momentous 20-year legacy and its remarkable contributions to the advancement of STEAM education in Hong Kong. A significant part of that legacy is witnessed in the highest academic standards in terms of methodology, research, and scholarship that HLMA winners have consistently demonstrated.

The Hon John KC LEE, The Chief Executive of the Hong Kong Special Administrative Region said, "Throughout the past two decades, the Hang Lung Mathematics Awards have been one of the most influential mathematics competitions for secondary school students in Hong Kong. The Awards contributed significantly to fostering a conducive learning environment for our students, encouraging them to embrace the beauty, and the power, of mathematics and science. I express my warmest congratulations to all awardees who have all come along the intellectual path to manifest your creativity, perseverance, and flexibility of mind. Your talents are not just meant for personal gain, but also for the betterment of humanity and the world."

Speaking at the awards ceremony, Mr. Ronnie C. Chan, Chair of Hang Lung Properties, said, "The Hang Lung Mathematics Awards (HLMA) embodies our unwavering commitment to community investment, promoting excellence and innovation in mathematics education for the

Page1 (Total 7 pages)



youth of Hong Kong. As we commemorate its 20th year, we are heartened by the strong support from students, schools, and the academic community, solidifying our shared mission to advance mathematics education and push the boundaries of excellence. Together, we empowered countless young minds to pursue their passion and unlock their potential in mathematics, science, and technology. HLMA stands as a beacon of inspiration, fostering a lasting love for these disciplines and propelling the next generation of innovators forward."

Professor Nancy Ip, President of HKUST, said, "HKUST is proud to partner with Hang Lung Properties to co-organize the Hang Lung Mathematics Awards since 2021. Together, we have fostered a community of budding talents and provided them with rigorous mathematical training. Our aim is to equip the next generation with analytical thinking and problem-solving skills, preparing them to lead with foresight and creativity. With joint efforts, we are fulfilling our vision to transform Hong Kong into a global hub for innovation and technology."

Professor Richard Schoen, 2017 Wolf Prize Laureate in Mathematics and Chair of the 2023 HLMA Scientific Committee, expressed his appreciation for the high standard of the research reports submitted by the participants. "The Scientific Committee would like to congratulate the student participants in this year's competition for the high quality of their work and presentations. Whether you were a prize winner or not, we appreciate the creative effort that went into the choice of projects and the approaches to their solution. The hard work required to complete them was noteworthy. We salute your efforts! We also acknowledge the preliminary evaluations done by a number of mathematicians around the world whose work was essential for us to arrive at the top 15 projects that were presented to us. Finally, we acknowledge the generous support of Hang Lung Properties which made the competition possible. What a unique way to contribute to the educational system of Hong Kong!"

During the ceremony, Mr. Adriel Chan, Vice Chair of Hang Lung Properties, moderated a stimulating Fireside Chat featuring two HLMA past winners, Dr. Owen H. Ko, 2004 HLMA winner and Assistant Dean (Research), Faculty of Medicine at The Chinese University of Hong Kong, and Ms. Ewina Pun, 2012 HLMA winner and doctoral candidate at Brown University. These remarkable young scientists shared their journeys and provided distinctive perspectives on the transformative power of mathematics and its impact on neuroscience and neural engineering.

The 2023 Hang Lung Mathematics Awards attracted the participation of over 70 teams from close to 50 secondary schools in Hong Kong. Under the supervision of a teacher, each team decided on a mathematics topic, designed and conducted research, and submitted a research report. A total of 15 teams were selected to enter the final Oral Defense stage, where a Scientific Committee comprising internationally renowned scholars and educators evaluated the research reports following a rigorous, multi-step review process. The teams selected to continue to the final round were invited to attend an Oral Defense where they presented their research in front of the Scientific Committee.



This year marks the 20th year of the Hang Lung Mathematics Awards, a prestigious biennial competition founded in 2004. HLMA inspires secondary school students to explore beyond boundaries and fulfill their creative potential in mathematics and science. It promotes excellence and passion, and showcases Hong Kong students on the global stage. Throughout its illustrious history of 10 editions, 2,600 students from over 200 schools have participated, submitting more than 460 innovative research reports. For each competition, Hang Lung Properties donates HK\$2.5 million. HK\$1 million is allocated as prize money with the remainder supporting HKUST to provide vital initiatives including academic consultation, assessment, administration, and educational outreach activities to inspire more students. HKUST also offers scholarships for teachers nominated by the winning schools to further their studies through the Master of Science Program in Mathematics for Educators. Over the long term, the HLMA has had profound influence in cultivating young mathematical talent, with many past winners graduating from top universities worldwide and now contributing significantly to society through work in academia and professional fields. The Awards play an important role in recognizing and fostering a love of mathematical inquiry that lasts far beyond secondary school.

For a detailed list of winners of the 2023 Hang Lung Mathematics Awards, please refer to the attachment.

Photo caption:



Dr. Christine Choi, Secretary for Education of the Hong Kong Special Administrative Region (left), and Professor Richard Schoen, 2017 Wolf Prize Laureate in Mathematics and Chair of the 2023 HLMA Scientific Committee (right) with the 2023 Hang Lung Mathematics Awards Gold Award winners Kyan Ka Hin Cheung and Ethan Jon Yi Soh from Harrow International School Hong Kong. Their research title is "On the Properties of the Semigroup Generated by the RL Fractional Integral"





(From left) Mr. Adriel Chan, Vice Chair of Hang Lung Properties, hosts a Fireside Chat featuring Ms. Ewina Pun, 2012 HLMA winner and doctoral candidate at Brown University, and Dr. Owen H. Ko, 2004 HLMA winner and Assistant Dean (Research), Faculty of Medicine at The Chinese University of Hong Kong, on the theme "Unleashing Possibilities in Neuroscience and Neural Engineering with Mathematics"



A photo of the winning teams of the 2023 Hang Lung Mathematics Awards with Dr. Christine Choi, Secretary for Education of the Hong Kong Special Administrative Region, Mr. Ronnie C. Chan, Chair; Mr. Adriel Chan, Vice Chair, and Mr. Weber Lo, Chief Executive Officer of Hang Lung Properties; Professor Yike Guo, Provost of Hong Kong University of Science and Technology; 2023 Hang Lung Mathematics Awards Scientific Committee Chair, Professor Richard Schoen, 2017 Wolf Prize Laureate in Mathematics, and members of Scientific Committee, Steering Committee, Executive Committee, and Screening Panel



Attachment:

List of Winners of the 2023 Hang Lung Mathematics Awards					
Award	Research Title	Team Member(s)	Teacher	School Name	
Gold	On the Properties of the Semigroup Generated by the RL Fractional Integral	Kyan Ka Hin Cheung Ethan Jon Yi Soh	Mr. Thomas Johnson	Harrow International School Hong Kong	
Silver	Least Optimal Square Packing in a Square	Chun Hei Mok Hei Wong	Mr. Tin Yau Cheung	S.K.H. Tsang Shiu Tim Secondary School	
Bronze	On the Parametrization of Egyptian Fractions	Hei Tung Tam	Mr. Yuk Lun Fong	HKUGA College	
Honorable	e Mentions (listed by so	chool name in alphabetical	order)		
Research Title		Team Member(s)	Teacher	School Name	
Structure of Critical Groups of Circulant Graphs		Mason Chi Wah Chan Tsz Sing Chong Lucas Chavez Mocan	Mr. Long Tin Chan	Diocesan Boys' School	

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Structure of Critical Groups of Circulant Graphs	Mason Chi Wah Chan Tsz Sing Chong Lucas Chavez Mocan Himansh Vijay Pahilwani Tsz Ho Wong	Mr. Long Tin Chan	Diocesan Boys' School
Algorithmic Classification on the Expansion of Fractions in Negative Rational Base	Ho Lam Lau Ryan Sze Chit Lo Jane Chi Kuan Ng Kin Long Wong	Mr. Yuk Lun Fong	HKUGA College
Mean Shadow of Rotating Objects	Wang Chit Kwong Ngai Wang Lam Ho Tung Wong	Mr. Yan Lam Fan	Pui Ching Middle School
Generalising Orthocentres of Triangles to Simplices as the Isogonal Conjugates of the Circumcentres	Kwan Yu Chan Hok Lai Ng	Mr. Pak Leong Cheung	St. Paul's Co-educational College

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About Hang Lung Properties Limited

Hang Lung Properties Limited (SEHK stock code: 00101) creates compelling spaces that enrich lives. Headquartered in Hong Kong, Hang Lung Properties develops and manages a diversified portfolio of world-class properties in Hong Kong and the nine Mainland cities of Shanghai, Shenyang, Jinan, Wuxi, Tianjin, Dalian, Kunming, Wuhan, and Hangzhou. With its luxury positioning under the "66" brand, the company's Mainland portfolio has established its leading position as the "Pulse of the City". Hang Lung Properties is recognized for leading the way in enhanced sustainability initiatives in real estate as it pursues sustainable growth by connecting customers and communities.

At Hang Lung Properties - We Do It Well.

For more information, please visit www.hanglung.com.

About The Hong Kong University of Science and Technology

The Hong Kong University of Science and Technology (HKUST) (https://hkust.edu.hk/) is a world-class research intensive university that focuses on science, technology and business as well as humanities and social science. HKUST offers an international campus, and a holistic and interdisciplinary pedagogy to nurture well-rounded graduates with global vision, a strong entrepreneurial spirit and innovative thinking. Over 80% of our research work were rated "Internationally excellent" or "world leading" in the Research Assessment Exercise 2020 of Hong Kong's University Grants Committee. We were ranked 2nd in Times Higher Education's Young University Rankings 2023, and our graduates were ranked 29th worldwide and among the best from universities from Asia in Global Employability University Ranking 2023. As of September 2023, HKUST members have founded 1,747 active start-ups, including 9 Unicorns and 13 exits (IPO or M&A), generating economic impact worth over HK\$ 400 billion. InvestHK cited QS World University Rankings by Subject 2021 to demonstrate the performance of five world's top 100 local universities in several innovation-centric areas, among which HKUST ranked top in four engineering and materials science subjects.

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