Preface

We are pleased to present this collection of research papers written by the winners of the 2021 Hang Lung Mathematics Awards (HLMA).

The new partnership between Hang Lung Properties and The Hong Kong University of Science and Technology marks a new chapter for this mathematics research competition for secondary school students in Hong Kong. We are honored to have Professor Richard Schoen, 2017 Wolf Prize Laureate in Mathematics, as Chair of the HLMA Scientific Committee, and Professor George F. Smoot, 2016 Nobel Laureate in Physics, to lead the Steering Committee.

Faced with the challenges of the pandemic and restrictions on international travels in 2021, we have embraced the use of technology and held our Oral Defense for the first time in hybrid format over two consecutive days, engaging our students with local and overseas professors over five time zones.

We are impressed with the choice of topics, the originality of ideas, and the depth of the research presented by the 2021 HLMA winners. They all have pursued excellence with integrity and rigor and achieved pleasing results. It is very heartening to see the young talents in Hong Kong blossom through this competition and discover their passion for mathematics.

HLMA's success relies on the strong support from academia, schools, teachers, students and the community. Our special thanks go out to the Scientific Committee, Steering Committee, Executive Committee, and Screening Panel members who graciously donated time, energy, and expertise to make this possible. We hope the HLMA will continue to flourish and reach new heights in providing a sustainable and open platform for our youths to discover the joys of mathematics and sciences with integrity and passion.

Mr. Weber Lo
Chief Executive Officer
Hang Lung Properties Limited

Professor Yang Wang
Vice-President for Institutional Advancement
The Hong Kong University of Science and Technology