

Preface

This collection features research papers written by the winners of the 2023 Hang Lung Mathematics Awards (HLMA).

For two decades, HLMA has been cultivating excellence among Hong Kong's young mathematics talents and nurturing curious minds. Through rigorous research projects, our winners have gained experience conducting independent scholarly work that will serve them well in future pursuits. Today, many of our past winners are making meaningful impact across diverse, cutting-edge industries as the next generation of innovators and leaders. By building confidence and inspiring dreams in our youth, we believe the Awards help nurture the leaders of tomorrow, strengthening Hong Kong's global innovation role.

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, 2006 Nobel Laureate in Physics, to lead the Steering Committee. We also thank the members of our Scientific Committee, Steering Committee, Executive Committee, and Screening Panel for their time and expertise in supporting the Awards' vision.

It is our hope that this collection will inspire further exploration in mathematics, following the footsteps of our past winners who are tackling global challenges through innovation.

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