

PREFACE

2012 Hang Lung Mathematics Awards (HLMA) marked the fifth occasion where The Institute of Mathematical Sciences and the Department of Mathematics at The Chinese University of Hong Kong collaborated with Hang Lung Properties to organize a biennial mathematics research competition for secondary school students in Hong Kong.

We are pleased to see that HLMA has touched the hearts and minds of many mathematics enthusiasts - students, teachers, mathematicians alike - in the pursuit of mathematics discovery and truth. Moreover, some of our earlier winners have graduated and have been contributing to society in many ways, personally, academically and professionally.

This book collects the research papers of the winners of the 2012 HLMA which have met the highest academic standards in terms of scholarship, execution and methodology comparable to those of the top-tier university level thesis. It is gratifying to see that many gifted young students rose to the challenge and delivered excellent results under the quality guidance of their teachers.

We hope the publishing of these excellent papers would serve to inspire our young generation to embrace a lifelong pursuit for knowledge, and to enlist the support of teachers, schools, government, and the community in this process.

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