

# **Annual General Meeting**

Hong Kong Mathematical Society

May 23, 2020

- ▶ Thanks to the council members, committee members for the two awards and all the colleagues in the HKMS

## **Agenda**

- ▶ Announcement of Awards
- ▶ Financial Report
- ▶ Election of new council

**Hong Kong Mathematical Society**

**HKMS Awards Presentation**



2019

**HKMS Outstanding**  
**Young Scholars Award**

# Selection committee:

- ▶ Ngai-Ming Mok (HKU)
- ▶ Chi-Wang Shu (Brown University)
- ▶ Zhouping Xin (CUHK)
- ▶ Shou-Wu Zhang (Princeton University)

## Awardee : Kwokwai Chan

- ▶ Kwokwai Chan has made important contributions on the interfaces between complex geometry, symplectic geometry and mathematical physics revolving around the Mirror Symmetry Conjecture from physics and Kontsevich's Homological Mirror Symmetry Conjecture. In a sequence of articles Kwokwai Chan and coauthors have studied toric Calabi-Yau manifolds in relation to these conjectures. Especially, he realized for such manifolds the Strominger-Yau-Zaslow program to use T-duality to explain mirror symmetry, illustrating in these examples the important phenomenon of wall-crossing. He also computed quantum corrections via open Gromov-Witten invariants on toric Calabi-Yau manifolds through the delicate analysis of pseudo holomorphic discs.

# Awardee : Renjun Duan

- ▶ Renjun Duan works in the area of nonlinear evolutionary partial differential equations arising from physics. He has made important contributions to the studies of qualitative behavior of solutions to such equations, in particular, to the large time asymptotic stability on the Boltzmann equations with or without cutoffs and related systems. In a series of substantial works, he obtained the optimal large time behavior of small-amplitude classical solutions to the Vlasov-Maxwell-Boltzmann/Landau system and related kinetic equations with self-consistent forces in the whole space, and he also established the global well-posedness of the Boltzmann equations for a class of initial data of either large amplitude or lower regularity.

## Awardee : Wei Xiang

- ▶ Wei Xiang has made significant contributions to studies of multi-dimensional compressible Euler systems. In particular, his works on existence of steady contact discontinuities, global existence of detached transonic shock past a blunt body, and subsonic jet problem are all substantial. He also established deep results on shock reflection and related problems in gas dynamics.



**Hong Kong Mathematical Society**

**HKMS Best Thesis Award**

# Selection committee:

- ▶ Jun Zou (CUHK)
- ▶ Wei-Ping Li (HKUST)
- ▶ Tong Yang (CityU)

# Awardees:

## **Shiqi Ma (HKBU)**

- ❖ Determination of random Schrödinger operators

## **Paolo Piersanti (CityU)**

- ❖ Obstacle problems in linearized elasticity

## **Zhu Zhang (CUHK)**

- ❖ Some mathematical problems in kinetic theory: global dynamics, phase transition

**Thank You**