

**Singapore Mathematical Society
Annual Report 2021**

1. Membership

The membership in the various categories at the end of 2021 is shown below.

Membership	2021 figures	2020 figures
Honorary	9	9
Life	82	98
Ordinary	20	25
Institution	55	26
Junior	4	2
TOTAL	170	160

2. Officials

The officials of the Society for 2021 were:

President :	A/P Victor Tan	Asst Editors :	A/P Adrian Roellin
Vice-Presidents :	A/P Chan Song Heng Dr Hang Kim Hoo A/P Yap Von Bing	Committee Members :	A/P Toh Pee Choon Dr Lau Jing Feng Dr Ku Cheng Yeaw Dr Tan Liang Soon Dr Wong Wei Pin
Hon Secretary :	Dr Tang Wee Kee		
Hon Treasurer :	Mr Wang Haibin		
Editor :	A/P Toh Tin Lam		
Asst Secretary :	Dr Wang Fei		
Asst. Treasurer:	Dr Soon Wan Mei		

3. Activities

a. Publications

The Society published one volume (Volume 47) of the Mathematical Medley and the SMO 2021 solution book (edited by Dr Ku Cheng Yeaw, A/P Toh Pee Choon and A/P Toh Tin Lam). Due to the pandemic, the two issues of the Medley were combined into one issue that was sent to SMS members in early 2022.

b. Lectures

SMS Lecture Series “Mathematical Models and Epidemics” by Professor Alex Cook (NUS) was held on March 11, 2021 via Zoom. The lecture was well attended with more than 200 participants.

c. Singapore Mathematical Olympiad

- The Society conducted the Singapore Mathematical Olympiad (Junior, Senior and Open Sections) in September 2021. Round 2 of the competitions were cancelled due to the pandemic. A total of 7216 students from 104 secondary schools and junior colleges participated in the various sections of Round 1 of the Olympiad.
- For Junior Section, there were 3412 participants from 85 schools. For Senior Section, there were 2129 participants from 79 schools. For Open Section, there

were 1675 participants from 50 schools. There were no overseas participants due to the pandemic.

- The SMO Subcommittee 2021 comprised:
 - Ku Cheng Yeaw (Chairman)
 - Hang Kim Hoo (Deputy Chairman/Administration)
 - Toh Pee Choon (Junior Section Coordinator)
 - Ku Cheng Yeaw (Senior Section Coordinator)
 - Toh Tin Lam (Open Section Coordinator)
 - Tay Tiong Seng and Wong Yan Loi (Second Round Coordinator)
- The following were contributors of competition problems:
Toh Tin Lam, Dong Fengming, Ku Cheng Yeaw, Ngan Ngiap Teng, Tay Tiong Seng, Toh Pee Choon, Wang Fei, Wong Yan Loi.

d. International Mathematical Olympiad (IMO)

- The 62nd IMO was held in St Petersburg, Russia from 14 to 24 July 2021. Due to the COVID-19 pandemic, each team took the competition examination at a centre in their home country.
- The Singapore team took the examination at Raffles Institution. A total of 619 contestants from 107 countries or regions participated in this IMO.
- The Singapore National Team to the 62nd IMO consisted of the following members:

Team Leader: Wong Yan Loi (National University of Singapore)
Deputy Team Leader: Teo Teck Kian, Thomas (Raffles Institution)
Contestants: Boo Tse Yang, Lucas (Raffles Institution)
Hu Xinghui (Raffles Institution)
Shevonne Chia (NUS High)
Low Choo Ray (Raffles Institution)
Ong Ee Shua, Etienne (Raffles Institution)
Lai Pengchong (Raffles Institution)
Observers: Toh Shan Hong Dylan (Student at University of Cambridge)
Lee Ker Yang (Student at University of Cambridge)

- Boo Tse Yang, Lucas received gold medal. Shevonne Chia, Low Choo Ray, and Ong Ee Shua, Etienne received silver medals. Hu Xinghui and Lai Pengchong received Bronze medals.
- The team attained a total score of 123.
- The Singapore team was ranked 15th among 107 countries.
- Shevonne Chia was awarded the Maryam Mirzakhani Prize for Asia.
- The IMO commissioner to Singapore was Vladimir Barzov.
- The Singapore IMO Committee 2021 consisted of the following members and trainers:
Wong Yan Loi (Chairman), Tay Tiong Seng, Low Fook Hong (MOE), Chua Seng Kee, Chua Seng Kiat, Tay Yong Chiang, Wang Fei, Lu Shang-Yi, Thomas Teo Teck Kian, Wang Haibin, Zong Lixing, Wu Jiawei.

e. Singapore Mathematical Project Festival

- The Singapore Mathematics Project Festival 2021 attracted a total of 48 projects. Judging panels, made up of mathematicians, were formed to grade the projects

and presentation of each team. The grades were used as a reference for short-listing the projects for the final round. Consequently, 5 teams from the Junior Section and 5 teams from the Senior Section were invited for online interview.

- The judges for the Festival were Ku Cheng Yeaw (NTU), Liu Yiqun, Wang Fei (NUS), Tay Tiong Seng (SMS), Teo Kok Ming, Zhao Dongsheng, Toh Pee Choon (NIE).

f. SMS Essay Competition

- The Society organized the 11th SMS essay competition with the theme “Mathematics and Pandemics”. The ongoing COVID-19 outbreak had highlighted the importance of mathematics in fighting pandemics. Through this competition, the society hoped that students would learn about the mathematics applied in disaster management, public healthcare and biomedical science, and understand how mathematics is applied through the modelling process in constructing effective models for informing health policy and increasing the efficiency in screening and tracing. The competition was officially launched on March 11, 2021 and ended on July 9, 2021.
- The Society received a total of 71 entries from 21 schools with 27 entries for Category A (Secondary 1 & 2 or equivalent), 21 for Category B (Secondary 3 & 4 or equivalent), and 23 for Category C (JC or equivalent).
- The judges for the competition were:
Category A: Pang Yen Ping (MOE), Tan Liang Soon (MOE)
Category B: Tan Liang Soon (MOE), Wong Wei Pin (SUTD)
Category C: Alex Cook (NUS), Ho Weng Kin (NIE)

g. Annual Prize Presentation Ceremony

- The Prize Presentation Ceremony was cancelled owing to COVID-19.

h. SEAMS

- Victor attended 3 SEAMS council meetings on Mar 14, Jul 31 and Dec 11, 2021. Former SEAMS Presidents Prof Tan Eng Chye (Singapore) and Prof Fidel Nemenzo were invited to the Mar 14 meeting, which coincided with the International Day of Mathematics.
- Berinderjeet Kaur represented SMS as a panel speaker at the 2nd SEA Women Mathematicians Meeting on July 10, 2021.
- Professor Ngo Viet Trung (Vietnam) was elected the next SEAMS President (2022-2023). Victor Tan (Singapore) and Intan Muchtadi (Indonesia) were appointed as Vice Presidents.

i. International Congress of Mathematicians (ICM) 2022

ICM 2022 was scheduled to take place from 6–14 July 2022. The Society has appointed Gan Wee Teck (chair), Bao Weizhu and Dinh Tien Cuong as members of the nomination committee to nominate speakers to the Congress. Zhu Chengbo has been invited by the organizers to be a speaker at the Congress.

j. Enrichment Programmes in Mathematics

- Primary Mathematics Olympiad Programme (PMOP)

The Society conducted PMOP in June and November. There was a total of 332 students in 12 groups.

- Secondary Enrichment Programme
SMS conducted 4 sessions (16 hours) for MOE Gifted Programme, 2 sessions (4 hours) for River Valley High School, and 1 session (2 hours) for St. Margaret's Secondary School.

- k. **Singapore Science & Engineering Fair (SSEF)**
SMS supported the annual SSEF2021 with the institution of the **SMS Special Award for Ingenuity** for mathematics projects. The SSEF is an annual event organized by MOE and Science Centre Singapore. The SSEF is a national competition for research projects done by full-time students up to the Junior College level. This augural SMS Special Award for Ingenuity was awarded to two teams. Both projects were from Hwa Chong Institution with their respective projects titled Functional Equations with Permutations of Finite Order, and The Wheels of Life. The following members from SMS helped in the judging of the Mathematics Projects for this award: Victor Tan, Hang Kim Hoo, Cheong Kang Hao and Hang Hao Chuien.

4. SMS Prizes in Mathematics

- The **Singapore Mathematical Society Gold Medal and Book Prize 2021** at NUS was awarded to Ling Yan Hao, a student in Mathematics with First Class Honours and best overall performance in Mathematics.
- The **Singapore Mathematical Society Gold Medal and Book Prize 2021** at NTU was awarded to Fang Xiaowei, a student in the School of Physical and Mathematical Sciences with First Class Honours and best overall performance in Mathematical Sciences.
- The **Singapore Mathematical Society Medal in Mathematical Sciences 2021** at NTU was awarded to Wang Haoyang, a graduate student with the best PhD thesis in Mathematical Sciences in NTU.
- The **Singapore Mathematical Society Book Prize 2021** at NIE was awarded to Ms Vera Lee Man Er, the best student teacher in Mathematics in the Bachelor of Science (Education)(Secondary) Programme.
- The **Singapore Mathematical Society Book Prize for Engineering Mathematics 2021** at Temasek Polytechnic was awarded to Lim Xie Quan, the best Mathematics student from Engineering School.
- The **Singapore Mathematical Society Special Award for Ingenuity** for mathematics projects at SSEF was awarded to two teams from Hwa Chong Institution.

5. Finance

This was dealt with in the Treasurer's report. The Society wishes to record its thanks to the Honorary Auditor, Chew Tuan Seng, for auditing the accounts.

6. Acknowledgements

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- The Ministry of Education and Micron Technology for their financial support;
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Tang Wee Kee
Honorary Secretary

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