

Singapore Mathematical Society Annual Report 2015

1. Membership

Membership in the various categories at the end of 2015 is shown below.

Membership	2015 figures	2014 figures
Honorary	9	9
Life	91	87
Ordinary	74	43
Institution	71	77
Junior	43	16
TOTAL	288	232

2. Officials

The officials of the Society for 2015 were:

President : Professor Ling San

Vice-Presidents : Dr Hang Kim Hoo
A/P Victor Tan

Professor Toh Kim Chuan

Hon Secretary : Dr Tang Wee Kee

Hon Treasurer : A/P Chew Tuan Seng

Editor : A/P Toh Tin Lam

Asst Secretary : Dr Wang Fei

Asst. Treasurer: Mr Wang Haibin

Asst Editors : Dr Lim Kay Jin

A/P Yap Von Bing

Committee Members: Dr Gwee Hwee Ngee

Assoc Prof Leung Ka Hin

Mrs Tan-Foo Kum Fong

Dr Toh Pee Choon

3. Activities

a. Publications

- The Society published two issues (Volume 41, Numbers 1, 2) of the Mathematical Medley and the SMO 2015 solution book (edited by Dr Ku Cheng Yeaw, A/P Tay Tiong Seng, Dr Toh Pee Choon and A/P Toh Tin Lam).

b. Lectures

- SMS Public Lecture “Mathematics, Computation and Science” by Professor Tay Yong Chiang (NUS) was held on March 9 at LT31, NUS.

c. Singapore Mathematical Olympiad

- The Society conducted the Singapore Mathematical Olympiad (Junior, Senior and Open Sections) in June 2015. A total of 7976 students from 119 secondary schools and junior colleges participated in the various sections of the Olympiad.
- For Junior Section, there were 3809 participants from 99 schools. For Senior Section, there were 2357 participants from 90 schools. For Open Section, there were 1810 participants from 63 schools.
- The SMO Subcommittee 2015 consisted of
 - Associate Professor Victor Tan (Chairman)
 - Dr Hang Kim Hoo (Deputy Chairman/Administration)

- Dr Toh Pee Choon (Junior Section Coordinator)
- Dr Ku Cheng Yeaw (Senior Section Coordinator)
- Associate Professor Toh Tin Lam (Open Section Coordinator)
- Associate Professor Tay Tiong Seng (Second Round Coordinator)

The following were contributors of competition problems:

Tay Tiong Seng, Wong Yan Loi, Chua Seng Kee, Denny Leung, Toh Tin Lam, Dong Fengming, Ng Boon Leong, Zhao Dongsheng, Ku Cheng Yeaw, Ng Wee Seng, Wang Fei, Toh Pee Choon, Ho Foo Him, Ng Wee Leng,

d. International Mathematical Olympiad

- The 56th International Mathematical Olympiad (IMO) was held in Chiang Mai, Thailand from 4 to 16 July 2015. A total of 577 contestants from 104 countries or regions participated in this IMO.
- The Singapore National Team to the 56th International Mathematical Olympiad consisted of the following members:

Team Leader:	Wong Yan Loi (National University of Singapore)
Deputy Team Leader:	Teo Teck Kian Thomas (Raffles Institution)
Contestants:	Tan Kieren Sheldon (Raffles Institution)
	Lin Kewei David (Raffles Institution)
	Ma Zhao Yu (Raffles Institution)
	Tan Siah Yong (Raffles Institution)
	Toh Shan Hong Dylan (NUS High)
	Liu Yijia (Raffles Institution)
Observers:	Tay Tiong Seng (National University of Singapore)
	Ang Yan Sheng (sponsored by MOE)
	Thomas Teo Teck Kian (Raffles Institution)
	Kuan Jun Jie Joseph (sponsored by SMS)
- Gold –Kieren Sheldon
Silver – Lin Kewei David, Ma Zhao Yu, Tan Siah Yong, Toh Shan Hong Dylan
Bronze – Liu Yijia

Unofficially, the team was ranked 10th with a total of 139 points.

- The Singapore International Mathematical Olympiad Committee 2015 consisted of the following members and trainers:
 - Wong Yan Loi (Chairman),
 - Tay Tiong Seng
 - Mr Atraju Kanan Ramdas (MOE)
 - Barry Chia (MOE),
 - Chua Seng Kee
 - Chua Seng Kiat
 - Denny Leung
 - Tay Yong Chiang
 - Jeffrey Pang Chin How
 - Wang Fei
 - Lu Shang-Yi
 - Thomas Teo Teck Kian
 - Wang Haibin
 - Zong Lixing
 - Ai Xinghuan
 - Ngan Ngiap Teng
 - Wu Jiawei

e. China Western Mathematical Invitation

- The China Western Mathematical Invitation 2014 was held in Yinchuan, China, from 13th August to 19th August 2015.
- The Singapore National Team consisted of:
Team Leader: Mr Zong Lixing
Contestants:
 - Yang Gan (Raffles Institution)
 - Caleb Leow Yong Quan (Raffles Institution)
 - Lee Ker Yang (Raffles Institution)
 - Li Chen Xu (Raffles Institution)
 - Khor Jun Wei (Raffles Institution)
 - Matthew Fan Xin Yu (NUS High)
 - Gabriel Goh Kheng Lin (NUS High)
 - Joel Tan Junyao (NUS High)
- Results:
 - Gold – Joel Tan Junyao
 - Silver – Yang Gan, Caleb Leow Yong Quan, Lee Ker Yang, Li Chen Xu, Matthew Fan Xin Yu, Gabriel Goh Kheng Lin
 - Bronze – Khor Jun Wei

f. China Mathematical Olympiad

- The 31th China Mathematical Olympiad (CMO 2015) was held in Yingtan, China from 14th to 18th December 2015. 6 students were selected to represent Singapore accompanied by 2 teachers as team leaders.
- The Singapore National Team consisted of:
Team Leaders: Mr Zong Lixing (Hwa Chong Institution) and Mr Ai Xinghuan (Catholic Junior College)
Contestants:
 - Glen Lim Wei An (Raffles Institution)
 - Ma Zhao Yu (Raffles Institution)
 - Bryan Wang Peng Jun (Hwa Chong Institution)
 - Clarence Chew Xuan Da (NUS High)
 - Dylan Toh Shan Hong (NUS High)
 - Joel Tan Junyao (NUS High)
- Results:
 - Gold – Ma Zhao Yu, Glen Lim Wei An, Clarence Chew Xuan Da, Bryan Wang Peng Jun
 - Silver – Dylan Toh Shan Hong
 - Bronze – Joel Tan Junyao

g. Singapore Mathematics Symposium

- SMS organized the Sixth Singapore Mathematics Symposium on 25th September 2015 at NTU SPMS LT 2.
- The symposium featured 4 speakers –Dai Min, from NUS Mathematics Department, Pan Guangming, from NTU School of Physical and Mathematical Sciences, Ng Keng Meng from NTU School of Physical and Mathematical Sciences, and To Wing Keung, from NUS Mathematics Department.
- There was also a poster competition participated by graduate students from NUS and NTU. Doan Minh Luan of NTU and Zhao Quan of NUS were selected by the panel of judges to be the winners of the poster competition.

h. Singapore Mathematics Project Festival

The Singapore Mathematics Project Festival 2015 attracted a total of 37 projects (from 15 schools). Judging panels, made up of mathematicians and school teachers, were formed to grade the presentation of each team. The grades were used as a reference for shortlisting the projects for the final round. Consequently, 6 teams from the Junior Section and 5 teams from the Senior Section were invited to the Festival Congress held at Raffles Girls' School on 21st March 2015. The judges for the Festival were

Junior Section

- Tay Eng Guan (NIE)
- Teo Kok Ming (NIE)
- Toh Pee Choon (NIE)
- Zhao Dongsheng (NIE)

Senior Section

- Tay Tiong Seng (NUS)
- Prof Yang Yue (NUS)
- Wang Fei (NUS)

i. SMS Essay Competition

- The theme of the competition in 2015 was "Mathematics, Computation and Science". It attracted a total of 97 entries for categories A (lower sec), B (upper sec) and C (JC) respectively.
- Panel of judges consisted of Ho Foo Him, Angeline Su, Dennis Yeo, Ng Hao Jin and Ho Weng Kin
- Three top prizes were given out in each of the three Categories.

j. AME-SMS Conference 2015

The AME-SMS conference 2015 was co-organized by SMS and the Association of Mathematics Educators (AME) and was held on 4th June 2015 at the NUS High School of Mathematics and Science.

The theme of the conference was Developing 21st Century Competencies. The conference attracted over 700 participants, most of whom were local mathematics teachers.

The co-chairs of the organizing committee were: Dr Toh Pee Choon, A/P Toh Tin Lam and Dr Hang Kim Hoo. Dr Hang Kim Hoo and A/P Victor Tan respectively delivered keynote lectures to Secondary School and Junior College teachers, while A/P Toh Tin Lam conducted a workshop during the conference.

k. Annual Prize Presentation Ceremony

The Prize Presentation Ceremony was held on 6th September 2015, at the NUS High School of Mathematics and Science Auditorium. The event was opened by the Vice President of SMS, A/Prof Victor Tan. The Guest-of-Honour was Professor Tan Eng Chye, Deputy President and Provost of NUS.

The following prizes were given out during the ceremony:

- 4 prizes for the SMS Essay Competition (Lower Secondary)
- 5 prizes for the SMS Essay Competition (Upper Secondary)
- 4 prizes for the SMS Essay Competition (Junior College)
- 7 prizes for the Singapore Mathematics Project Festival (Junior Section)
- 9 prizes for the Singapore Mathematics Project Festival (Senior Section)
- 30 individual prizes for the Singapore Mathematical Olympiad (Junior Section)
- 30 individual prizes for the Singapore Mathematical Olympiad (Senior Section)

- 30 individual prizes for the Singapore Mathematical Olympiad (Open Section)
- 38 School Awards for the Singapore Mathematical Olympiad (Category 1)
- 19 School Awards for the Singapore Mathematical Olympiad (Category 2)
- Awards to the Singapore Team to the 55th International Mathematical Olympiad

Winners of the Gold award for the of the Singapore Mathematics Project Festival also presented their winning projects: Exploration of the Isoperimetric Inequality by Dylan Toh Shan Hong and Enumerating $(k;l)$ -critical and supercritical permutations by Yeo Wan Jin.

1. Enrichment Programmes in Mathematics

- Primary Mathematics Olympiad Programme (PMOP)
SMS conducted the programme in June and December at NUS and NUS High respectively. Altogether 287 students attended the programme.
- Talent Outreach Programme (SMS-TOP)
The Society conducted 7 modules of enrichment programmes at Nanyang Primary School, Catholic High School, NUS High and NTU.
- Secondary Enrichment Programme
SMS conducted 6 sessions of enrichment courses/talks for MOE Gifted Programme in 2015. In addition, the Society also conducted another 3 sessions of enrichment classes for three different secondary schools (Paya Lebar Methodist Girls' School, River Valley High School, Temasek Junior College).

4. SMS Prizes in Mathematics

- The **Singapore Mathematical Society Challenge Trophy** for Junior Section (Team) of the Singapore Mathematical Olympiad 2015 was jointly won by NUS High School of Mathematics and Science.
- The **Singapore Mathematical Society Challenge Trophy** for Senior Section (Team) of the Singapore Mathematical Olympiad 2015 was won by NUS High School of Mathematics and Science.
- The **Singapore Mathematical Society Challenge Shield** for Open Section (Team) of the Singapore Mathematical Olympiad 2015 was won by Raffles Institution.
- The **Singapore Mathematical Society Prize** for Open Section (Individual) of the Singapore Mathematical Olympiad 2014 was awarded to Bryan Wang Peng Jun from Hwa Chong Institution.
- The **Singapore Mathematical Society Prize** for the Top Three Performers of the National Mathematical Olympiad of Singapore (Primary) 2015, organized by NUS High School of Mathematics and Science.
- The **Singapore Mathematical Society Gold Medal and Book Prize** 2015 at NUS was awarded to Ye Jin He,, a student in Mathematics with First Class Honours and best overall performance in Mathematics.
- The **Singapore Mathematical Society Gold Medal and Book Prize** 2015 at NTU was awarded to Ivan Wangsaciptalingga, a student in Mathematical Sciences with First Class Honours and best overall performance in Mathematical Sciences.
- The **Singapore Mathematical Society Book Prize** 2015 at NIE was awarded to Low Jianliang, best student teacher in Mathematics in the BSc (Education) program.
- The **Singapore Mathematical Society Book Prize for Engineering Mathematics** 2015 at Temasek Polytechnic was awarded to Chiang Jun Siang, the best Mathematics student from Engineering School.

5. Finance

This is dealt with in the Treasurer's report. The Society wishes to record its thanks to the Honorary Auditor, A/P Tay Tiong Seng, for auditing the accounts.

6. Acknowledgements

The Committee wishes to express its thanks to

- the Ministry of Education and Singapore National Academy of Science for their financial support;
- the Southeast Asian Mathematical Society for donating the SEAMS prize for the Singapore Mathematical Olympiad;
- NUS High School of Mathematics and Science, Paya Lebar Methodist Girls' School, National University of Singapore, Hwa Chong and Raffles Girls' School for their assistance in the organization of the Singapore Mathematics Project Festival;
- NUS High School of Mathematics and Science for their assistance in the organization of the Prize Presentation Ceremony;
- - Department of Mathematics of the National University of Singapore
 - Mathematics Society of the National University of Singapore
 - Mathematics and Mathematics Education Academic Group of the National Institute of Education
 - Division of Mathematical Sciences of Nanyang Technological Universityfor their support and cooperation.

Tang Wee Kee
Honorary Secretary

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