

# Singapore Mathematical Society Annual Report 2014

## 1. Membership

Membership in the various categories at the end of 2014 is shown below.

Membership	2013 figures	2014 figures
Honorary	9	9
Life	68	87
Ordinary	69	43
Institution	78	77
Junior	24	16
<b>TOTAL</b>	<b>248</b>	<b>232</b>

## 2. Officials

The officials of the Society for 2014 were:

President :	Professor Ling San	Asst. Treasurer:	A/P Toh Tin Lam
Vice-Presidents :	Dr Hang Kim Hoo A/P Victor Tan	Asst Editors :	Dr Lim Kay Jin A/P Yap Von Bing
	Professor Toh Kim Chuan	Committee Members:	Mrs Tan-Foo Kum Fong Dr Toh Pee Choon Dr Gwee Hwee Ngee Mr Wang Haibin
Hon Secretary :	Dr Tang Wee Kee		
Hon Treasurer :	A/P Chew Tuan Seng		
Editor :	A/P Victor Tan		
Asst Secretary :	Dr Wang Fei		

## 3. Activities

### a. Publications

- Two issues (Volume 40, Numbers 1,2) of the Mathematical Medley.
- SMO 2014 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 – “**The Mathematics of Money**” by Professor Steven Kou (NUS) at LT31, NUS on March 11.

### c. Singapore Mathematical Olympiad

- The Society conducted the Singapore Mathematical Olympiad (Junior, Senior and Open Sections) in June 2014. A total of 9231 students from 132 secondary schools and junior colleges participated in the various sections of the Olympiad.
- For Junior Section, there were 4571 participants from 116 schools. For Senior Section, there were 2856 participants from 101 schools. For Open Section, there were 1804 participants from 71 schools.
- The SMO Subcommittee 2014 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, Chua Seng Kee, Denny Leung, Wong Yan Loi, Toh Tin Lam, Dong Fengming, Ho Foo Him, Ng Boon Leong, Ng Wee Leng, Zhao Dongsheng, Ku Cheng Yeaw, To Wing Keung, Toh Pee Choon, Teo Kok Ming

#### **d. International Mathematical Olympiad**

- The 55<sup>th</sup> International Mathematical Olympiad was held from 3<sup>rd</sup> to 13<sup>th</sup> July 2014, at Cape Town, South Africa. A total of 560 competitors from 101 competing countries participated in this IMO.
- The Singapore National Team:
  - Team Leader: Wong Yan Loi (National University of Singapore)
  - Deputy Team Leader: Lu Shangyi (Raffles Institution)
  - Contestants:
    - Liu Yi Jia (Raffles Institution)
    - Lin Kewei David (Raffles Institution)
    - Tan Siah Yong (Raffles Institution)
    - Tan Kieren Sheldon (Raffles Institution)
    - Toh Shan Hong Dylan (NUS High)
    - Ling Yan Hao (NUS High)
  - Observers:
    - Tay Tiong Seng
    - Ang Jie Jun (Former Contestant – sponsored by MOE)
    - Thomas Teo Teck Kian (Raffles Institution)
    - Ryan Chan (Former Contestant – sponsored by SMS)
- Gold – Liu Yi Jia, Tan Siah Yong, Tan Kieren Sheldon
- Silver – Ling Yan Hao, Toh Shan Hong Dylan
- Bronze – Lin Kewei David
- Unofficially, the team was ranked 8<sup>th</sup> with a total of 161 points.
- The Singapore International Mathematical Olympiad Committee 2014:
  - A/P Tay Tiong Seng (Chairman)
  - A/P Wong Yan Loi (Deputy Chairman)
  - Ms June Tan Hwee Chiat (MOE)
  - Mr Atraju Kanan Ramdas (MOE)
  - Prof Tay Yong Chiang
  - Dr Chua Seng Kiat
  - A/P Chua Seng Kee
  - A/P Denny Leung
  - Dr Jeffrey Pang
  - Mr Thomas Teo (RI)
  - Mr Lu Shangyi (RI)
  - Mr Wang Haibin (NUS High)
  - Mr Zong Lixing (HCI)

#### **e. China Western Mathematical Invitation**

- The China Western Mathematical Invitation (CWMI, previously known as CWMO) 2014 was held in Chongqing, China, from 14<sup>th</sup> August to 19<sup>th</sup> August 2014.
- The Singapore National Team:
  - Team Leader: Mr Thomas Teo Teck Kian
- Contestants:
  - Isaac Lee (Raffles Institution)
  - Bryan Wang (Hwa Chong Institution)
  - Joel Tan (NUS High)
  - Ma Zhao Yu (Raffles Institution)
  - Matthew Fan (NUS High)

- Eugene Lee (Raffles Institution)
- Clarence Chew Xuan Da (NUS High)
- Glen Lim (Raffles Institution)
- Results:
  - Gold – Glen Lim, Eugene Lee, Clarence Chew Xuan Da, Ma Zhao Yu, Matthew Fan, Bryan Wang
  - Silver – Joel Tan
  - Bronze – Isaac Lee

**f. China Mathematical Olympiad**

- The 30<sup>th</sup> China Mathematical Olympiad (CMO 2014) was held in Chongqing, China, from 18<sup>th</sup> to 21<sup>st</sup> December 2014.
- 6 students were selected to represent Singapore accompanied by 2 teachers as team leaders.
- Team Leaders: Mr Thomas Teo Teck Kian (Raffles Institution), Mr Zong Lixing (Hwa Chong Institution)
- Contestants:
  - Lee Hua Jun Eugene (Raffles Institution)
  - David Lin Kewei (Raffles Institution)
  - Liu Yijia (Raffles Institution)
  - Sheldon Kieren Tan (Raffles Institution)
  - Tan Siah Yong (Raffles Institution)
  - Dylan Toh Shan Hong (NUS High)
- Results:
  - Gold – Lee Hua Jun Eugene, Dylan Toh Shan Hong, Sheldon Kieren Tan, Liu Yijia
  - Silver – Tan Siah Yong
  - Bronze – David Lin Kewei

**g. Singapore Mathematics Symposium**

- SMS organized the Fifth Singapore Mathematics Symposium on 26<sup>th</sup> September 2014 at NUS LT 34.
- The symposium featured 4 speakers – Professor Chong Chi Tat from NUS Mathematics Department, Associate Professor Nicolas Privault from NTU School of Physical and Mathematical Sciences, Associate Professor Ren Weiqing from NUS Mathematics Department, and Associate Professor David John-Nott from NUS Department of Statistics and Applied Probability.
- There was also a poster competition participated by graduate students from NUS and NTU. Two winners (Wang Yan from NUS and Le Thi Khanh Hien from NTU) were selected by the panel of judges.

**h. Singapore Mathematics Project Festival**

The Singapore Mathematics Project Festival 2014 attracted a total of 44 projects. 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, 5 teams each from the Junior and Senior Sections were invited to the Festival Congress held at Nanyang Girls' High School on 22<sup>nd</sup> March 2014. The judges for the Festival were

#### Junior Section

- Dr Teo Kok Ming (NIE)
- Dr Toh Pee Choon (NIE)
- A/P Zhao Dongsheng (NIE)

#### Senior Section

- Dr Ku Cheng Yeaw (NUS)
- A/P Tay Tiong Seng (NUS)
- Prof Yang Yue (NUS)

### **i. AME-SMS Conference 2014**

The AME-SMS conference 2014 was co-organized by SMS and the Association of Mathematics Educators (AME) and was held on 5<sup>th</sup> June 2014 at the NUS High School of Mathematics and Science.

The conference attracted over 650 participants, most of whom were local mathematics teachers. The co-chairs of the organizing committee were: Dr Low-Ee Huei Wuan, Dr Toh Pee Choon and Dr Hang Kim Hoo. Prof Ling San delivered a keynote lecture; Dr Hang Kim Hoo, A/P Toh Tin Lam and A/P Yap Von Bing conducted workshops during the conference.

### **j. Annual Prize Presentation Ceremony**

The Prize Presentation Ceremony was held on 6<sup>th</sup> September 2014, at the NUS High School of Mathematics and Science Auditorium. The event was opened by the President of SMS, Professor Ling San. The Guest-of-Honour was Ms Chan Lai Fung (Permanent Secretary (Education), Ministry of Education)

The following prizes were given out during the ceremony:

- 9 prizes for the Singapore Mathematics Project Festival (Junior Section)
- 14 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)
- 31 individual prizes for the Singapore Mathematical Olympiad (Open Section)
- 44 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 55<sup>th</sup> International Mathematical Olympiad

Winners of the Gold award for the junior section of the Singapore Mathematics Project Festival also presented their winning projects: Conway's Game of Life by Wang An Aloysius, Koh Shang Hui from Hwa Chong Institution (High School).

### **k. Enrichment Programmes in Mathematics**

- Primary Mathematics Olympiad Programme (PMOP)  
SMS conducted the programme for 5 groups of students at NUS. Altogether 133 students attended the programme.
- Secondary Enrichment Programme  
SMS conducted 6 sessions of enrichment classes/talks for MOE Gifted Education Programme in 2014. In addition, the Society also conducted another 5 sessions of enrichment classes for three different secondary schools.

### **l. SMS Masterclasses**

The SMS Masterclass was co-organized with the Singapore Science Center from 22<sup>nd</sup> to 25<sup>th</sup> July 2014. The instructors for the Masterclasses were: A/Prof Chua Chek Beng (NTU) and A/P Frédérique Oggier (NTU).

### **m. Reciprocity Agreement**

The Society has established reciprocity agreements with the London Mathematical Society (LMS) and the Society for Industrial and Applied Mathematics (SIAM). The agreement with SIAM has been finalized. LMS's council has approved the agreement and it will be signed later.

#### 4. SMS Prizes in Mathematics

- The **Singapore Mathematical Society Challenge Trophy** for Junior Section (Team) of the Singapore Mathematical Olympiad 2014 was jointly won by Raffles Institution & NUS High School.
- The **Singapore Mathematical Society Challenge Trophy** for Senior Section (Team) of the Singapore Mathematical Olympiad 2014 was won by Raffles Institution.
- The **Singapore Mathematical Society Challenge Shield** for Open Section (Team) of the Singapore Mathematical Olympiad 2014 was won by Raffles Institution.
- The **Singapore Mathematical Society Prize** for Open Section (Individual) of the Singapore Mathematical Olympiad 2014 was awarded to Sheldon Kieren Tan from Raffles Institution.
- The **Singapore Mathematical Society Prize** for the Top Three Performers of the National Mathematical Olympiad of Singapore (Primary) 2014, organized by NUS High School of Mathematics and Science.
- The **Singapore Mathematical Society Gold Medal and Book Prize** 2014 at NUS was awarded to Luo Yusheng, a student in Mathematics with First Class Honours and best overall performance in Mathematics.
- The **Singapore Mathematical Society Gold Medal and Book Prize** 2014 at NTU was awarded to Keng Mi Jun, a student in Mathematical Sciences with First Class Honours and best overall performance in Mathematical Sciences.
- The **Singapore Mathematical Society Book Prize** 2014 at NIE was awarded to Lim Li Cheng, best student teacher in Mathematics in the BSc (Education) program.
- The **Singapore Mathematical Society Book Prize for Engineering Mathematics** 2014 at Temasek Polytechnic was awarded to Chen Zhihuan, 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, Dr Ng Kah Loon, 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;
  - Hwa Chong Institution, NUS High School, Paya Lebar Methodist Girls' School, Zhonghua Secondary School and Nanyang Girls' High 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 University
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