# Singapore Mathematical Society Annual Report 2012

### 1. Membership

Membership in the various categories at the end of 2012 is shown below.

Membership	2011 figures	2012 figures
Honorary	9	9
Life	67	69
Ordinary	83	80
Institution	103	74
Junior	54	26
TOTAL	316	258

#### 2 Officials

The officials of the Society for 2012 were:

President : Professor Zhu Chengbo Asst. Treasurer: A/P Leung Ka Hin Vice-Presidents : Dr. Hang Kim Hoo Asst Editors : A/P Yap Von Bing

Professor Ling San Dr. Fedor Duzhin

A/P Victor Tan Committee Members: A/P Toh Tin Lam

Hon Secretary : Dr. Ng Kah Loon Dr. Wang Fei

Hon Treasurer: A/P Chew Tuan Seng Mrs. Tan-Foo Kum Fong Editor: A/P Victor Tan Mr. Wang Haibin

Asst Secretary: Dr. Toh Pee Choon

### 3. Activities

### a. Publications

- One issue (Volume 37, Number 1-2) of the Mathematical Medley.
- SMO 2012 solution book (edited by A/P Tay Tiong Seng, Dr. Toh Pee Choon, A/P Toh Tin Lam and Dr Wang Fei).

# b. Lectures

• SMS Public Lecture - "The Foundational Role of Statistics in the Future of Medicine" by A/P Teo Yik Ying (NUS) at LT25, NUS on March 7, 2012. About 100 participants attended the talk.

### c. Singapore Mathematical Olympiad

 The Society conducted the Singapore Mathematical Olympiad (Junior, Senior and Open Sections) in June 2012. A total of 9742 students from 148 secondary schools and junior colleges participated in the various sections of the Olympiad.

For Junior section, there are 4626 participants from 123 schools. For Senior section, there are 3271 participants from 116 schools. For Open section, there are 1845 participants from 75 schools.

In addition, a total of 80 contestants from 1 school in Indonesia also sat for three of the competitions, SMO (Junior), SMO (Senior) and SMO (Open).

The SMO Subcommittee 2012 consisted of

- **▲** A/P Victor Tan (Chairman)
- **★** Dr Hang Kim Hoo (Deputy Chairman/Administration)

- **★** Dr Wang Fei (Junior Section Coordinator)
- **★** Dr Toh Pee Choon (Senior section Coordinator)
- **★** A/P Toh Tin Lam (Open Section Coordinator)
- **★** A/P Tay Tiong Seng (Round 2 Coordinator)

The following are contributors of competition problems:

Dr Lim Kay Jin, Mr Ng Wee Seng, A/P Yang Yue, Dr Ho Weng Kin, A/P Dong Fengming, Mr Ho Foo Him, Dr Ku Cheng Yeaw, Dr Ng Wee Leng, A/P Wong Yan Loi, A/P Denny Leung, A/P Tay Tiong Seng.

### d. International Mathematical Olympiad

• The 53<sup>rd</sup> International Mathematical Olympiad was held from 4<sup>th</sup> to 16<sup>th</sup> July 2012, at Mar del Plata, Argentina. A total of 548 competitors from 100 competing countries participated in this IMO.

• The Singapore National Team:

Team Leader: Wong Yan Loi (National University of Singapore)
Deputy Team Leader: Ng Boon Leong (Anglo-Chinese Junior College)

Contestants: Ang Yan Sheng (NUS High)

Kor Chong Luck Ryan
Lee You Jun
(Raffles Institution)
Li Er Lu Lawrence
(Raffles Institution)
(Raffles Institution)
(Ruffles Institution)
(NUS High)
(NUS High)

Observers: Thomas Teo Teck Kian (Raffles Institution)

Chiam Jia Han (Former Contestant – sponsored by MOE) Low Tian Wen Daniel (Former Contestant – sponsored by SMS)

- SMS sponsored a grant of \$6000 for the observer.
- Gold medals Lim Jeck

Silver medal - Kor Chong Luck Ryan, Lee You Jun, Ling Yan Hao

Bronze medal – Ang Yan Sheng, Li Er Lu Lawrence

Unofficially, the team was ranked 7<sup>th</sup> with a total of 154 points.

- The Singapore International Mathematical Olympiad Committee 2012
  - **★** A/P Tay Tiong Seng (Chairman)
  - **★** A/P Wong Yan Loi (Deputy Chairman)
  - **★** Ms June Tan Hwee Chiat (MOE)
  - **★** Ms Joanne Tay Chiew Hsia (MOE)
  - rof. Koh Khee Meng
  - **★** Prof Tay Yong Chiang
  - **₡** Dr. Chua Seng Kiat
  - **★** A/P Chua Seng Kee
  - **★** A/P Denny Leung
  - **t** Dr. Jeffrey Pang
  - **★** Mr Thomas Teo (Academic coordinator)
  - **★** Mr Lu Shang Yi (Academic coordinator)
  - **Mr** Wang Haibin
  - **≰** Mr Ng Boon Leong

### e. China Western Mathematical Olympiad

- The 12th China Western Mathematical Olympiad (CWMO 2012) was held in Hohhot, Inner Mongolia Autonomous Region, China from 26<sup>th</sup> September to 1<sup>st</sup> October, 2012.
- A total of 24 teams comprising of 144 students from Hong Kong, Kazakhstan, Tajikistan, Mongolia, Indonesia, Singapore and Western China were invited to take part in the competition.
- The Singapore National Team:

Team Co-Leader: Mr Wang Haibin and Mr Lu Shang-Yi

- Contestants:
  - **≰** Yap Jit Wu (NUS High)
  - **★** Way Tan (NUS High)
  - Clarence Chew Xuan Da (NUS High)
  - **★** Bay Wei Heng (Hwa Chong Institution)
  - **♦** David Lin Kewei (Raffles Institution)
  - **t** Teh Jiun Harn (Raffles Institution)
  - **★** Sheldon Kieren Tan (Raffles Institution)
  - Liu Yi Jia (Raffles Institution)
- Results:
  - Gold Medal: Liu Yi Jia, Way Tan, Clarence Chew Xuan Da
  - ★ Silver Medal: Yap Jit Wu, Bay Wei Heng, David Lin Kewei, Teh Jiun Harn, Sheldon Kieren Tan.

#### f. China Girls Mathematics Olympiad

- The 11<sup>h</sup> China Girls Mathematics Olympiad (CGMO 2011) was held in Guangzhou, China from 8<sup>th</sup> to 12<sup>th</sup> August 2012.
- A total of 32 teams comprising of 128 students from USA, Russia, Japan, South Korea, Philippines, Hong Kong, Macau, Taipei, Singapore and China were invited to take part in the competition.
- The Singapore National Team:

Team Co-Leader: Mr Wang Haibin, Ms Fan Wenying

- **★** Tan Pin Lin (NUS High)
- **≰** Jazlene Ong Jingwen (NUS High)
- **★** Louisa Huang Ruixue (Raffles Girls Secondary)
- **≰** Surya Mathialagan (NUS High)
- **★** Zhang Boyu (Raffles Girls Secondary)
- **★** Teo Si Yan (Raffles Girls Secondary)
- **t** Toh Wei Qi (NUS High)
- **★** Zhang Huijie (Raffles Girls Secondary)
- Results:
  - **★** Silver Medal: Tan Pin Lin, Jazlene Ong Jingwen, Louisa Huang Ruixue
  - Bronze Medal: Surva Mathialagan, Zhang Boyu, Teo Si Yan, Toh Wei Qi, Zhang Huijie

### g. Singapore Mathematics Symposium

- SMS organized the 3rd Singapore Mathematics Symposium on 28 September 2012 at S17-04-06, NUS.
- The symposium featured 4 speakers Professor Shen Zuowei from NUS Mathematics Department, Professor Xing Chaoping from NTU School of Physical and Mathematical Sciences, Dr Dmitrii Pasechnik from NTU School of Physical and Mathematical Sciences and Professor Zhu Chengbo from NUS Mathematics Department.
- There was also a poster competition participated by graduate students from NUS and NTU.
   Two winners (Jin Lingfei from NTU and Zhao Xiaofei from NUS) were selected by the panel of judges.

## h. Singapore Mathematics Project Festival

The Singapore Mathematics Project Festival 2012 attracted a total of 40 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 NUS High School on 17 March 2012.

The judges for the Festival were

#### Junior Section

- Dr. Teo Kok Ming (NIE)
- Dr. Toh Pee Choon (NIE)
- Dr. Adrian Lim Poon Chuan (NIE)

#### Senior Section

- Dr. Wang Fei (NUS)
- Dr Ku Cheng Yeaw (NUS)
- A/P Tay Tiong Seng (NUS)

### i. Annual Prize Presentation Ceremony

The Prize Presentation Ceremony was held on September 1, at the NUS High School of Mathematics and Science Auditorium. The event was opened by the President of SMS, Professor Zhu Chengbo. The Guest-of-Honour was Ms Ho Peng, Director-General of Education, Ministry of Education.

The following prizes were given out during the ceremony:

- 8 prizes for the Junior section and 6 prizes for Senior section of Singapore Mathematics Project Festival
- 30 individual prizes and 21 team prizes for the Junior section of Singapore Mathematical Olympiad
- 30 individual prizes and 20 team prizes for the Senior section of Singapore Mathematical Olympiad
- 30 individual prizes and 10 team prizes for the Open section of Singapore Mathematical Olympiad
- Awards for the 6 medallists of the 53<sup>rd</sup> International Mathematical Olympiad

Winners of the two Gold medal award projects from the Senior section of Singapore Mathematics Project Festival also gave presentations on their winning projects: "Weak Roman Domination" (Xu Linfeng from Hwa Chong Institution) and "A General Method of Flattening Convex Prismatoid into Flat Sheet" (Zhou Jingqi, Li Chenglei from NUS High).

More than 500 people, including members from the Press, School Principals, Teachers, Prize Winners and Parents turned up for the event.

### j. Enrichment Programmes in Mathematics

- Primary Mathematics Olympiad Programme (PMOP)
   SMS conducted the programme for 7 groups of students at NUS. Altogether 175 students have attended the programme.
- Secondary Enrichment Programme
   SMS conducted 6 sessions of enrichment classes/talks for MOE Gifted Education Programme in 2012.

#### k. SMS Masterclasses

The SMS Masterclass was a one-full day programme with four sessions conducted on November 17, 2012. A total of 48 students participated in this programme. The instructors for the Masterclasses were: A/P Victor Tan (NUS) and Dr. David Chew (NUS).

#### 4. SMS Prizes in Mathematics

- The **Singapore Mathematical Society Challenge Trophy** for Junior section (Team) of the Singapore Mathematical Olympiad 2012 was won by Raffles Institution.
- The **Singapore Mathematical Society Challenge Shield** for Open section (Team) of the Singapore Mathematical Olympiad 2012 was won by NUS High School.
- The **Singapore Mathematical Society Prize** for Open section (Individual) of the Singapore Mathematical Olympiad 2012 was awarded to Lim Jeck from NUS High School.
- The **Singapore Mathematical Society Shield** for Senior section of the Singapore Mathematics Project Festival 2012 was won by NUS High School of Mathematics and Science.
- The Singapore Mathematical Society Prize for the Top Three Performers of the National Mathematical Olympiad of Singapore (Primary) 2012 organized by NUS High School of Mathematics and Science.
- The **Singapore Mathematical Society Gold Medal and Book Prize** 2012 at NUS was awarded to Shi Xiaojie, a student in Mathematics with First Class Honours and best overall performance in Mathematics in his undergraduate studies.
- The **Singapore Mathematical Society Gold Medal and Book Prize** 2012 at NTU was awarded to Chan Swee Hong, a student in Mathematics with First Class Honours and best overall performance in Mathematical Sciences in her undergraduate studies.
- The **Singapore Mathematical Society Book Prize** 2012 at NIE was awarded to Chow En Xian, best student teacher in Mathematics in the BSc (Education) program.
- The Singapore Mathematical Society Book Prize for Engineering Mathematics 2012 at Temasek Polytechnic was awarded to Chen Long, 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 Leong Yu Kiang, for auditing the accounts.

# 6. Acknowledgements

The Committee wishes to express its thanks to

- the Ministry of Education and Singapore National Academy of Sciences for their financial support
- the Southeast Asian Mathematical Society for donating the SEAMS prize for the Singapore Mathematical Olympiad
- Zhenghua Secondary School, Hwa Chong Institution, 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 for their support and cooperation.

Ng Kah Loon Honorary Secretary

February 2013