

Singapore Mathematical Society Annual Report 2009

1. Membership

Membership in the various categories at the end of 2009 is shown below.

Membership	2008 figures	2009 figures
Honorary	9	9
Life	48	50
Ordinary	122	103
Institution	76	85
Junior	89	71
TOTAL	344	318

2. Officials

The officials of the Society for 2009 were:

President :	Professor Zhu Chengbo	Asst Secretary :	Dr. Ng Kah Loon
Vice-Presidents :	Dr. Hang Kim Hoo	Asst Editors :	Dr. Toh Tin Lam
	Professor Ling San		Dr. Fedor Duzhin
	A/P Helmer Aslaksen	Committee Members :	A/P Chew Tuan Seng
Ex-Officio :	A/P Peter Pang Yu Hin		A/P Teo Beng Chong
Hon Secretary :	A/P Victor Tan		Mrs. Tan-Foo Kum Fong
Hon Treasurer :	A/P Chua Seng Kee		Mr. Thomas Teo Teck Kian
Editor :	A/P Leong Yu Kiang		

3. Activities

a. Publications

- Two issue (Volume 35, Number 1 & 2) of the Mathematical Medley.
- SMO 2009 solution book (edited by A/P Tay Tiong Seng, Dr Toh Tin Lam, Dr Teo Kok Meng and Mr Thomas Teo Teck Kian).

b. Lectures

- SMS Public Lecture - “**A new twist for braids**” by Professor Jon Berrick (NUS) at LT31, NUS on February 11, 2009. More than 200 participants attended the talk.

c. Distinguished Visitor Program

- The distinguished visitor for DVP 2009 is Professor Roger Howe from Yale University.
- During his visit, Prof Howe conducted
 - Teachers’ workshop on “**Symmetry and Quadrilateral**” at Tanjong Katong School on February 21;
 - Academic Talk on “**Between Arithmetic and Algebra**” at LT4, NIE on February 27;
 - Public Lecture on “**Symmetry: More than Beautiful Pictures**” at LT31, NUS on March 31.

d. Teachers’ Workshop

A two-part Teachers’ workshop on **History of Mathematics** is conducted by A/P Peter Pang on April 17 and 29 at Tao Nan School. More than 50 teachers attended the workshop.

e. Singapore Mathematical Olympiad

- The Society conducted the Singapore Mathematical Olympiad (Junior, Senior and Open Sections) in May/June 2009. A total of 10164 students from 144 secondary schools and junior colleges participated in the various sections of the Olympiad.
For Junior section, there are 4933 participants from 111 schools. For Senior section, there are 3354 participants from 116 schools. For Open section, there are 1877 participants from 68 schools.
In addition, schools from regional countries were invited to participate in the Olympiad. A total of 512 contestants from 21 schools in Malaysia, India, Indonesia, Thailand, Vietnam, Myanmar and Hong Kong sat for two of the competitions, SMO (Junior) and SMO (Senior).

The SMO Subcommittee 2009 consisted of

- A/P Helmer Aslaksen (Chairman)
- Dr Hang Kim Hoo (Deputy Chairman/Administration)
- Mr Thomas Teo Teck Kian (Junior Section Coordinator)
- Dr Teo Kok Meng (Senior section Coordinator)
- Dr Toh Tin Lam (Open Section Coordinator)
- A/P Tay Tiong Seng (Special Rounds Coordinator)

The following are contributors of competition problems:

Mr David Chia Meng Hwee, Mr Wang Fei, Dr Toh Pee Choon, Mr Ho Foo Him, Dr Ng Wee Leng, Dr Dong Fengming, A/P To Wing Keung, A/P Wong Yan Loi, Dr Roger Poh, Dr Lee Tuo Yeong, A/P Tay Eng Guan, A/P Denny Leung, A/P Chua Seng Kee

f. International Mathematical Olympiad

- The 50th International Mathematical Olympiad was held from 10th to 22nd July 2009, at Bremen, Germany. A total of 565 competitors from 104 competing countries participated in this IMO.
- The Singapore National Team:

Team Leader:	Wong Yan Loi	(National University of Singapore)
Deputy Team Leader:	David Chia	(NUS High School)
Contestants:	Chiam Jia-Han	(Raffles Junior College)
	Loh Yao Chen Ivan	(Raffles Junior College)
	Chan Jun Neng Ryan	(NUS High)
	Lim Jeck	(NUS High)
	Low Tien Wen Daniel	(Raffles Junior College)
	Tng Jia Hao Barry	(Raffles Junior College)
Observers:	Tay Tiong Seng	(NUS – sponsored by MOE)
	Hang Kim Hoo	(NUS High – sponsored by MOE)
	Thomas Teo	(NUS High – sponsored by NUS High)
	Teo Oi Mei	(MOE)
	Ho Jun Wei	(Former Contestant – sponsored by MOE)
Wu Jia Wei	(Former Contestant – sponsored by SMS)	
- SMS sponsored a grant of \$5000 for the observer.
- Silver medal – Chiam Jia-Han, Loh Yao Chen Ivan
Bronze medals – Chan Jun Neng Ryan, Lim Jeck, Low Tien Wen Daniel
Honorable mention – Tng Jia Hao Barry
- Unofficially, the team was ranked 30th with a total of 116 points.

- The Singapore International Mathematical Olympiad Committee 2009
 - A/P Tay Tiong Seng (Chairman)
 - A/P Wong Yan Loi (Deputy Chairman)
 - Ms Teo Oi Mei (MOE)
 - Prof. Koh Khee Meng
 - Prof Tay Yong Chiang
 - Dr. Chua Seng Kiat
 - A/P Chua Seng Kee
 - A/P Denny Leung
 - Mr Thomas Teo (Academic coordinator)
 - Mr Lu Shangyi (Academic coordinator)

g. China Western Mathematical Olympiad

- The 9th China Western Mathematical Olympiad (CWMO 2009) was held in Kunming, China from 27th October to 1st November 2009.
- A total of 24 teams comprising of 95 students from Hong Kong, Kazakhstan, Romania, Singapore and Western China were invited to take part in the competition.
- The Singapore National Team:
Team Co-Leader: Mr Lu Shangyi & Mr Teo Teck Kian
Contestants:
 - Ang Jie Jun (ACS Indep)
 - Ang Yan Sheng (NUS High School)
 - Gabriel Wong Ying Lin (NUS high School)
 - Wayne Lin (NUS High School)
 - Joseph Kuan Jun Jie (Raffles Institution)
 - Lee You Jun (Raffles Institution)
 - Barry Tng Jia Hao (Raffles Institution – JC)
 - Vincent Brian Arifin Tjeng (Raffle Institution – JC)
- Results:
 - Gold Medal: Vincent Brian Arifin Tjeng, Lee You Jun
 - Silver Medal: Ang Jie Jun, Ang Yan Sheng, Gabriel Wong Ying Lin, Wayne Lin, Joseph Kuan Jun Jie, Barry Tng Jia Hao

h. Singapore Mathematics Project Festival

The Singapore Mathematics Project Festival 2009 attracted 36 projects from Junior section and 32 projects from Senior section. This was a significant increase from last year's figures (49). 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 River Valley High School on 21 March 2009.

The judges for the Festival were

Junior Section

- A/P Tay Eng Guan (NIE)
- Dr. Teo Kok Meng (NIE)
- Dr. Toh Tin Lam (NIE)
- A/P Zhao Dongsheng (NIE)

Senior Section

- A/P Helmer Aslaksen (NUS)
- A/P Chua Seng Kee (NUS)
- Dr. Ng Kah Loon (NUS)
- A/P Danny Leung (NUS)

i. SMS Essay Competition

- The theme of this inaugural competition is the application of mathematics in Astronomy. It attracted a total of 48 entries for categories A (lower sec), B (upper sec) and C (JC) respectively.
- Panel of judges consists of A/P Helmer Aslaksen (Chair, NUS), Mrs Tan Chiu Jin (TJC), Mr Teo Gene En (VJC) and Mr Ong Yen Chin (NYP).
- Three top prizes were given out in each of the three Categories.

j. Annual Prize Presentation Ceremony

The Prize Presentation Ceremony was held on September 5, at the NUS High School of Mathematics and Science Auditorium. The event was opened by the President of SMS, Prof Zhu Chengbo. The Guest-of-Honour was Professor Louis Chen, Director of the Institute for Mathematical Sciences.

The following prizes were given out during the ceremony:

- 13 prizes for the Junior section and 12 prizes for Senior section of Singapore Mathematics Project Festival
- 30 individual prizes and 23 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
- 9 prizes for the SMS Essay Competition
- Awards for the 6 medallists of the 50th 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: “**Mastermid – A mathematical analysis of its variants**” and “**Folding Prismatoids using a form of 3D origami**”.

More than 500 people, including school principals, teachers, prize winners and parents turn up for the event.

k. Enrichment Programmes in Mathematics

- Primary Mathematics Olympiad Programme (PMOP)
SMS conducted the programme for 10 groups of students at NUS and at 2 primary schools (De La Salle and Red Swastika). Altogether 381 students have attended the programme.
- Secondary Enrichment Programme
SMS conducted 13 sessions of enrichment classes/talks for secondary schools and MOE Gifted Education Programme in 2009.

l. SMS-Royal Institution Masterclasses

Jointly organized by SMS and Royal Institution (Ri) of Great Britain, the Masterclasses was a two-full day programme with four sessions conducted on December 1 and 2, 2009. A total of 55 students from 12 schools participated in this programme. The instructors for the Masterclasses were: Prof Alan Davies (Ri), A/P Helmer Aslaksen, A/P Tay Eng Guan and A/P Sinai Robins.

4. SMS Prizes in Mathematics

- The **Singapore Mathematical Society Challenge Trophy** for Junior section (Team) of the Singapore Mathematical Olympiad 2009 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 2009 was jointly won by Hwa Chong Institution and Raffles Institution.
- The **Singapore Mathematical Society Prize** for Open section (Individual) of the Singapore Mathematical Olympiad 2009 was awarded to Loh Yao Chen Ivan from Raffles Institution.
- The **Singapore Mathematical Society Shield** for Senior section of the Singapore Mathematics Project Festival 2009 were won by Raffles Institution.
- The **Singapore Mathematical Society Prize** for the Top Three Performers of the National Mathematical Olympiad of Singapore (Primary) 2009 organized by NUS High School of Mathematics and Science.
- The **Singapore Mathematical Society Gold Medal and Book Prize** 2009 at NUS was awarded to Tan Kok Meng, 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** 2009 at NTU was awarded to Wang Jingxi, a student in Mathematics with First Class Honours and best overall performance in Mathematical Sciences in his undergraduate studies.
- The **Singapore Mathematical Society Book Prize** 2009 at NIE was awarded to Cheryl Lee Mei Chen, best student teacher in Mathematics in the BSc (Education) program.
- The **Singapore Mathematical Society Book Prize for Engineering Mathematics** at Temasek Polytechnic was awarded to Liu Li Li, 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 Chan Yiu Man, 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
- Raffles Institution, Raffles Girls' Secondary School, Paya Lebar MGS, Gan Eng Seng School, Hwa Chong Institution, Nanyang Girls' High School, Dunman Secondary School, NUS High School and River Valley 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
- Tao Nan School and Tanjong Katong Secondary School for their assistance in the organization of the Teachers' workshops.
 - 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.