

**INSTITUTE OF PHYSICS, SINGAPORE**  
**ANNUAL REPORT**  
**(2021/2022)**

**1. ANNUAL GENERAL MEETING**

**1.1** The 48<sup>th</sup> Annual General Meeting was held on Friday, 26 March 2021, at 6.00 pm in NUS LT 31.

**1.2** Six nominations were received and all six were declared elected. Following members were elected to the Council for the 2021/2022 and 2022/2023 sessions:

Dario Poletti  
Gan Chee Kwan  
Goh Johnson Kuan Eng  
Nidhi Sharma  
Cesare Soci  
Erkan Polatdemir

Council members carrying on from the previous session were:

Christian Kurtsiefer  
Koh Wee Shing  
Abel Yang  
Paul Lee  
Mark Lim  
Tsao Hoi Nok

**1.3** The Meeting appointed the following members to serve as Honorary Auditors for the 2021/2022 term:

Andrew Wee  
Darren Tan

**2. COUNCIL MEETINGS**

**2.1** Four Council Meetings were held in the 2021/2022 session.

**2.2** At the First Council Meeting held on 14<sup>th</sup> May 2021, the following Office Bearers were elected:

President	:	Christian Kurtsiefer
Vice-President	:	Koh Wee Shing
Hon Secretary	:	Dario Poletti
Hon Treasurer	:	Johnson GOH Kuan Eng

**2.3** The following members were appointed chairmen of the respective committees:

Data Protection Officer: Dr KOH Wee Shing

IPS Meeting: Assoc Prof Dario POLETTI  
Assoc Prof Cesare SOCI  
Prof Christian KURTSIEFER  
Assoc Prof Shaffique ADAM

IPS Awards: Assoc Prof Cesare SOCI

IPS Membership: Dr Mark LIM  
Dr Chee Kwan GAN

IPS Competitions: Assoc Prof LEE Choon Keat, Paul  
Dr Nidhi SHARMA  
Dr TSAO Hoi Nok  
Dr Erkan POLATDEMIR

IPS Astronomy: Dr Abel YANG  
Media and Publicity: Dr Abel YANG

**2.4** The following members were also co-opted to the Council: Shaffique Adam (Yale-NUS) and Ng Hui Khoon (Yale-NUS)

### **3. ACTIVITIES**

#### **3.1 Competitions**

Singapore has organized the Singapore Physics Olympiad and the Singapore Junior Physics Olympiad, and participated in the International Physics Olympiad, the International Youth Physics Tournament and the Asian Physics Olympiad.

##### **3.1.1 Results of International Physics Olympiad 2021**

Our students made Singapore proud with 2 gold medals and 3 silver medals.

<b>Name</b>	<b>IPhO 2021 Result</b>	<b>School</b>
Akshat <b>Chaudhary</b>	Gold medal	NUS High School of Mathematics and Science
Hui Xiang <b>Sim</b>	Gold medal	NUS High School of Mathematics and Science
Lewin <b>Marsh</b>	Silver medal	Hwa Chong Institution
Yunrui <b>Wang</b>	Silver medal	Raffles Institution
Chien Hao <b>Tan</b>	Silver medal	Raffles Institution

### 3.1.2 International Youth Physics Tournament

The International Youth Physics Tournament was run in a hybrid format version. Singapore participated online (the team met in a school in Singapore and competed) and finished in first place out of 13. The team was composed of Chen Guangyuan, Sun Xiaoqing and Yang Liu from Raffles Institution, and Chen Yanlin and Lim Li Xin Jed from NUS High School of Mathematics and Science. Supporting members were Alphonsus Low Khee Ern from NUS High School of Mathematics and Science, and Ong Jiun Jye and Shrimay Bikash Saikia from Raffles Institution.

### 3.1.3 Asian Physics Olympiad

Singapore participated in the 21<sup>st</sup> Asian Physics Olympiad (APhO) organised by Taiwan from 17-24 May 2021. This competition was an enriching opportunity for our students to challenge themselves in their study of physics. Our students did Singapore proud with their excellent results, with all eight students achieving awards – 5 Silver, 2 Bronze, and 1 Honourable Mention.

<b>Name</b>	<b>APhO 2021 Result</b>	<b>School</b>
David Teo	Bronze medal	Anglo-Chinese School (Independent)
Paul Seow	Silver medal	NUS High School of Mathematics and Science
Whang Shih Ee	Silver medal	NUS High School of Mathematics and Science
Gyan Seah	Silver medal	NUS High School of Mathematics and Science
Vishal Mohanty	Silver medal	NUS High School of Mathematics and Science
Johnson Kathiravan	Silver medal	NUS High School of Mathematics and Science
Shen Zhen Yang	Bronze medal	Raffles Institution
Derrick Bowen Qiu	Honourable Mention	Raffles Institution

### 3.1.4 Singapore Physics Olympiad

The theoretical round for the 34<sup>th</sup> Singapore Physics Olympiad (SPhO) in 2021 was held on Friday, 22 October 2021, with more than 200 JC1 students from various schools in Singapore taking part. The experimental round for shortlisted students was held on Thursday, 18 November 2021. Both rounds of the competition were hosted at participating schools. The gold medals were 29, silver medals 26, bronze medals, 26 and honorable mentions 35.

The special prizes were given to

#### **ABSOLUTE WINNER**

<b>Name</b>	<b>School</b>
Lim Jin Tao	NUS High School of Mathematics and Science

#### **TOP THEORY**

<b>Name</b>	<b>School</b>
Chen Guangyuan	Raffles Institution
Lim Jin Tao	NUS High School of Mathematics and Science

#### **TOP EXPERIMENT**

<b>Name</b>	<b>School</b>
Lim Jin Tao	NUS High School of Mathematics and Science
Tran Phuoc My	Saint Andrew's Junior College
Uy Robert Frederik Diaz	Hwa Chong Institution

### 3.1.5 Singapore Junior Physics Olympiad

The 2021 Singapore Junior Physics Olympiad was organized in two rounds. In the first round 182 students obtained a medal or an honorable mention. In the second round 53 of them.

### 3.2 IPS Outreach to Astronomy

The Annual IPS Astronomy was not able to organize any physical event because of COVID-19 related restrictions. The IPS has decided to support 1000 SGD the AstroChallenge2022.

### 3.3 IPS 12<sup>th</sup> Annual Meeting 2020

The 12<sup>th</sup> IPS Meeting occurred in a hybrid physical and virtual manner, hosted both at the ParkRoyal Hotel and on Zoom. It was held on the 30<sup>th</sup> September and 1<sup>st</sup> of October 2021. Up to 170 person participated physically each day. The plenary talks were given by Prof Yan Jie (NUS), Ranjan Singh (NTU), Javier Fernandez (SUTD) and Jose-Ignacio Latorre (CQT/NUS).

### **3.4 IPS AWARDS 2021**

The IPS Awards will be given at the IPS Meeting which will be held in NTU in the last quarter of 2022. The winners of IPS Awards 2021 are:

#### IPS Council Awards

- a) The IPS President's Medal – Antonio Castro Neto (NUS)
- b) IPS Emerging Investigator Prize – Hariom Jani (NUS)
- c) IPS Physics Tech Prize – Gan Eng Swee (NTU)

#### World Scientific Award

- d) IPS Medal and Prize for Outstanding Physics Research – Yang Shengyuan (SUTD)

#### ARC Sciences Award

- e) IPS Nanotechnology Medal and Prize – Wang Qijie (NTU)

#### Cadi Scientific Award

- f) IPS Medal and Prize for Public Awareness of Physics – Christopher Xianbo Ong, Brian Siew Jiang Yi, Shau Quek Jia Zhi, Ariana Goh, Galen Lee Qixiu, Luo Zeyuan, Paul Seow Jian Hao, Tian Shuhao, Theodore Lee Chong Jen and Man Juncheng.

#### Crescendas Awards

- g) The IPS Education Medal and Prize for Outstanding Physics Teacher (Junior College) – Benjamin Chan Kim Choon (ACS Independent)
- h) The IPS Education Medal and Prize for Outstanding Physics Teacher (Secondary School) – Syed Ali Bin Mohamed Alhabshee (Westwood Secondary School)
- i) The IPS Education Medal and Prize for Outstanding Engineering Physics Teacher (Polytechnics/ITE) – No nominee
- j) The IPS Education Medal and Prize for Outstanding Applied Physics Researcher – No nominee
- k) The IPS Physics Education Research Medal and Prize - Bernard Ricardo (NUS High)

### **3.5 IPS MEDAL / BOOK PRIZE FOR UNDERGRADUATES**

The NIE Board of Examiners concurred that there is no deserving candidate for The IPS Book Prize in the Academic Year 2021-2022.

#### 4. SPONSORSHIP IN 2021-22

The IPS places on record its gratitude and appreciation to

- (1) The Quantum Engineering Programme for providing 20000 SGD for 12<sup>th</sup> IPS Meeting 2021
- (2) Physics Department NUS and Center for Quantum Technologies for providing 6000 SGD for 12<sup>th</sup> IPS Meeting 2021
- (3) The Center for Quantum Technologies for providing 5000 SGD for 12<sup>th</sup> IPS Meeting 2021
- (4) The Center for Advanced 2D Materials for providing 3000 SGD for 12<sup>th</sup> IPS Meeting 2021
- (5) The Department of Material Science and Engineering NUS for providing 3000 SGD for the 12<sup>th</sup> IPS Meeting 2021
- (6) NTU SPMS for providing 6000 SGD for 12<sup>th</sup> IPS Meeting 2021
- (7) SUTD SMT cluster for providing 1000 SGD for 12<sup>th</sup> IPS Meeting 2021
- (8) A\*Star Biomedical Sciences Institute for providing 2000 SGD for 12<sup>th</sup> IPS Meeting 2021
- (9) The company which also provided sponsorship for 12<sup>th</sup> IPS Meeting 2021 is listed below:

Tektronix Southeast Asia	\$6000
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- (10) World Scientific for sponsoring for IPS awards with 1300 SGD
- (11) Crescendas Bionic for sponsoring for IPS awards with 2900 SGD
- (12) Cadi Scientific for sponsoring for IPS awards with 500 SGD
- (13) ARC Sciences for sponsoring for IPS awards with 1300 SGD

#### 5. MEMBERSHIP

During the 2021-2022 session, the Council elected the following to the respective membership classes:

Fellows - 0

Life Members – 17

Associate – 1

Student Members – 0

##### **Life Members**

Joel Yang

Ayesha Reezwana

Anindya Banerji

Alexandra Carvalho

Norman Ng Guan Han

Ganesh Jiom

Utkur Mirsaidov

Ani Sharma  
Xin Mingjie  
Wu Jinqi  
Kelvin Koor Kai Jie  
Massimo Spina  
Lim Zhan Hong Neville  
Akash Gadekar  
Seidikkurippu Nallainayagam Piramanayagam  
Yeo Xi Jie  
Md Tanvirul Islam

**Associate**

Yulia Lekina



Reported by:  
Dario Poletti  
Hon Secretary



Vetted by:  
Christian Kurtsiefer  
President