

**Asian
Physics
Olympiad**

Adelaide, Australia | 5–13 May 2019

GRAVITAS

APhO 2019 NEWSLETTER
ADELAIDE, AUSTRALIA
VOL. 7 12 MAY 2019

Gravitas was inspired by the Latin word for 'Gravity', it being the fundamental force of nature that holds our universe together - much like the passion for physics that binds people of diverse backgrounds and aspirations at a momentous occasion like APhO.

MAKING WAVES AT GLENELG



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Adelaide's finest

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exam results

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Leave personalised
and heartfelt message
to your mates



GLENELG GETAWAY

Every time you see red and yellow flags up, you know Glenelg lifesavers are patrolling along the coastline to keep beachgoers safe. "I didn't know much about life saving before, but now I realise their job is vital. I've definitely learnt a lot about how they rescue people," said Sze-Chun Lau from Hong Kong.

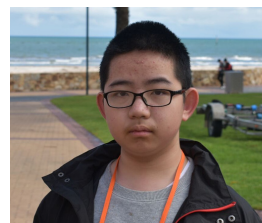
Yesterday morning, APHO students extended their cultural explorations to the Glenelg Surf Life Saving Club, a lifesaving organisation of South Australia established in 1931. Friendly volunteer lifesavers organised an ergo rowing competition for students to warm up and have a taste of what it's like to row an inflatable rescue boat.

All the young physicists enthusiastically participated, with Australia's Simon Yung winning first place.

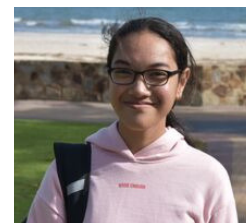
Following the friendly competition, students took a peaceful stroll along the beautiful beach when they were pleasantly surprised by several spotted seals swimming under the Glenelg jetty.

"I was very excited when I saw the seal. It's a huge fellow. I also love this white sandy beach as it's quite different from beaches in my hometown," said Puth Srey Neath Pich from Cambodia.

For Saudi Arabian Moaaz Fayumy, the cool weather is something he enjoys. "I really like it here. Summer in Saudi Arabia is always very hot. Glenelg has a breathtaking ocean view and I enjoy watching the waves coming towards me with the breeze. I really wish we could have more time for outdoor activities like this and explore more about Australia's nature and wildlife," he said.



SZE-CHUN LAU



**PUTH SREY
NEATH PICH**



**MOAAZ
FAYUMY**



ESSA ALFAIFI
SAUDI ARABIA

"It's been a great experience, especially since the organisers did such an amazing job. To me, organising those visits with the entire group was also nice. This will truly be a memorable experience."



FABIOLA LIP
SINGAPORE

"The Australians are very hospitable and despite the cool weather you just feel warmth everywhere. They go out of the way to make us feel very welcome. I have been involved in the Olympiads for the last 18 years and always looked forward to Australia hosting the Olympiads. It's finally here now."



SUMATHIPALA HALPITA
SRI LANKA

"It's been wonderful here. We had a beautiful experience at Cleland Wildlife Park with the kangaroos and koalas. It was my first time seeing them and they were just fascinating. We also visited the city and did a bit of shopping so overall it has been a great experience."

SPREAD THE WORD



Friends and family worldwide can now join us for the Closing Ceremony on 12 May to find out who will be going home with the coveted medals. Tune in on our Facebook page live at 3.30pm (GMT +9.30).

AUSSIE WORD OF THE DAY

'STRAYA'

Short for 'Australia'.

E.g. Hope your stay in Straya has been great!

WEATHER



Possible shower

High 17° Low 9°

JOIN THE CONVERSATION



ACKNOWLEDGEMENT OF COUNTRY

Kaurna miyurna, Kaurna yarta, ngadlu tampinhi

The Asian Physics Olympiad Committee acknowledges that we are meeting on the traditional country of the Kaurna people of the Adelaide Plains. We recognise and respect their cultural heritage, beliefs and relationship with the land. We acknowledge that they are of continuing importance to the Kaurna people living today.

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MODERATION DAY

The last and final leg of the APhO 2019 examination process took place yesterday as Team Leaders and Observers spent the afternoon deliberating exam results with the Marking team.

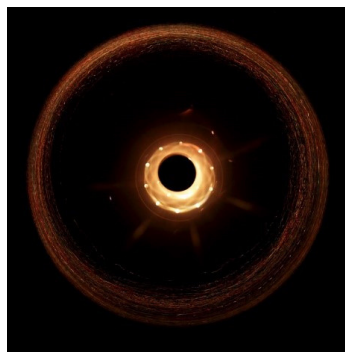
This part of the process enables Markers and Team Leaders to discuss the marks given to each student and come to an agreement over the points given for each answer. The session ended in the evening, with the final rankings discussed at the International Board Meeting.

ADELAIDE INSIDER

Brought to you by The University of Adelaide

REVOLUTIONARY NEW AREA OF ASTRONOMY & ASTROPHYSICS

TODAY'S SNEAK PEEK



Gravitational wave astronomy is a revolutionary new area of astronomy and astrophysics. Gravitational waves provide information about the evolution of the universe which was previously not available through electromagnetic radiation or particle-based observations.

Gravitational waves provide a new way of sensing the universe and observing its early history.

The University of Adelaide's gravitational wave research group was an active contributor to the first successful detection of gravitational waves in 2015, and was awarded the 2017 Nobel Prize for Physics.

This detection observed stellar mass black hole binaries for the first time and provided the most extreme tests of Einstein's Theory of General Relativity. In 2017 the collision of two neutron stars was observed for the first time and the resulting wave-forms gave insight into the structure of the most extreme nuclear matter in the universe.

The group is currently developing new systems with advanced optical diagnostics. These systems will enable the laser beams used in the LIGO and Virgo detectors to be constantly monitored and adjusted during use, which will significantly increase detection rates and fidelity.

The next step will be a range of next-generation detectors. The group is also exploring technology that will use silicon mirrors cooled to about minus 150°C. This may allow detectors to routinely observe gravitational waves from coalescing black holes and neutron stars, and search the universe for previously undetectable new sources.

Autographs + Messages

UNTIL WE MEET AGAIN