

## Minutes of the International Board IPhO 2017

1. A total of 395 students participated in the IPhO. The participants came from the following countries: Argentina, Armenia, Australia, Austria, Azerbaijan, Bangladesh, Belarus, Belgium, Bolivia, Bosnia and Herzegovina, Brazil, Bulgaria, Cambodia, Canada, Chinese Taipei, Colombia, Costa Rica, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Egypt, El Salvador, Estonia, Finland, France, Georgia, Germany, Ghana, Greece, Hong-Kong (China), Hungary, Iceland, India, Indonesia, Islamic Republic of Iran, Israel, Italy, Japan, Kazakhstan, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, Luxembourg, Macao (China), Macedonia, Malaysia, Mexico, Moldova, Mongolia, Montenegro, Nepal, Netherlands, Nigeria, Norway, Pakistan, Peoples Republic of China, Philippines, Poland, Portugal, Republic of Korea, Republic of Singapore, Romania, Russia, Saudi Arabia, Serbia, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Suriname, Sweden, Switzerland, Syria, Tajikistan, Thailand, Turkey, Turkmenistan, Ukraine, United Arab Emirates, United Kingdom, United States of America, Uzbekistan and Vietnam.

Meeting on Friday July 21<sup>st</sup>.

2. Due to the irregularities during both tests a large number of students became victim of different inconveniencies. Many students were supplied with wrong translations or none at all, some translations were delivered hours after the start of the exam. The marking by the organizers was very inconsistent and the differences between the organizers and leaders marking were in many cases unusually large. There was no way to resolve these problems during the regular moderation and therefore a special meeting of the IB was announced to face this problem. The President explained that anyhow the students should get the awards they deserved. The following procedure was proposed to get the most fair distribution of awards possible taken the actual circumstances into account:

- I. The marks of organizers determine thresholds as usual.
- II. Leaders decide whether this looks reasonable for their delegation, and think about the disadvantages that are present for their students.
- III. Leaders can submit a justified request to give a different class of medal, instead of the moderation procedure.
- IV. These requests will be evaluated/approved by the Secretariat. The marks of the organizers form part of the supporting evidence but are not definitive and not really needed.
- V. There will be a list of students with awards (medals or HM) produced and made public.

Slovenia: suggest that a discussion is needed.

The President says that there is no need for discussion at this instant.

Slovenia: asks what would need to happen for the IB to cancel the competition entire. What is the message to future organizers?

Canada: 395 students would be disappointed if they get nothing. This is more important than a message to the future. The message for the future is: do not make these mistakes again.

The President stops the discussion and points out that the proposed procedure is the only way out and calls for a vote. The proposal was carried by 107 out of 122 present.

The organizers presented the scores of the students from their marking. The thresholds turned out to be for Gold: 28.01, for Silver: 21.30, for Bronze: 14.70 and for HM: 11.12.

Meeting on Saturday July 22<sup>nd</sup>.

3. Helmuth Mayr presented an invitation to the next WFPhC congress. The theme is competitions and their place in gifted education.

4. Prof. José António Paixão, Chairman of the IPhO 2018 from Portugal, presented the information about IPhO 2018. The Olympiad will be held from 21st - 29th July 2018 in Lisbon, Portugal. To aid planning, the opening ceremony will be held on the morning of the 22nd, and the closing ceremony on the afternoon of the 28th. Manual Fiolhais will be the head of the Academic Committee.

5. The President presented on future IPhOs, including a graph showing the enormous growth in participating countries. Hope expressed that growth will continue. The President confirmed that an official letter recently received from the Ministry of Education of Lithuania confirms that they will host the Olympiad in 2020 in Vilnius. Thanks expressed to Lithuania. In 2021 there is a gap, due to Indonesia being scheduled for this originally, and Indonesia changed to host the 2017 Olympiad. There are two currently active options, Poland and Belarus. Other than 2021, the next five years look to have secure hosting for the IPhO.

6. Proposed statute change: a proposal was received from Israel about the awarding system for the IPhO. Presentation of current scheme according to the statutes. The President explained that the system is prone to inflation unless the host country marks generously. Otherwise the moderation effect is significant. The proposal of Eli Raz was distributed along with a statement of the negative effects of the current system; namely that it can lead to focusing only on threshold crossings when unjustified, to the detriment of other students' marks more accurately reflecting their relative performances in the competition. Gold becomes the watershed. Historically HM and bronze were down a little, silver up a little, gold up a lot to 12%. The proposed scheme: first part is that moderation to take place first and then thresholds determined. Second part is that these thresholds are to be higher but are almost the same as the historical averages for the last decade. Gold would change from 8% to 12%. Silver would change from 17% to 18%. Bronze and HM would remain at their current percentages. A third part of the proposal would set the time for moderation at minimum 35 minutes per question.

The President explained the detailed function of the proposed scheme. Presentation of two options - rounding up and accepting a small increase, or rounding down to ensure that there cannot be inflation. 2A will be the proposal to round up. 2B will be strictly non-inflationary. Difference will probably be a few students a year.

First two parts of proposal should be voted upon together. Splitting these could lead to results contradictory to the intent of the proposal and so the changes to the statutes are packaged. Proposal 3 is independent.

International Board discussion:

- Portugal: Why can we not vote for the first part and not the second? Concerns around the value of a gold medal being reduced permanently by this sort of change.
- President: The purpose of proposals 1 and 2 is to kill the inflation. Consequently it is not possible to have these votes separately otherwise people can choose proposal 2 and not proposal 1, as well.
- Israel: reason this part was an integral part of the proposal was to make leaders more likely to vote for it, which he is not sure will happen. Could always be changed later anyway if people don't like the thresholds.
- Denmark: There is another way to force low inflation, which is simply to pick 5%. This is not a serious suggestion, but illustrates that although the point is valid it is not an issue worth worrying about too much. The whole idea of having a fair ranking of the students is illusory, and claiming that it will be fair if we change this system of moderation is not reasonable. Will be much more expensive as there will be more delegates from all countries who can afford it, and moderation will suffer from people wanting every 0.005 that they can get. Doesn't see that there is any genuine advantage. Currently it may not be fair but it may also never be fair.
- Saudi Arabia: Understands Eli's reasoning, but has three reasons to disagree. First, the proposal may not be more fair to the students than the current system, and the points are not really remembered in perpetuity. Ministry invites students to events based on medals, but not on points - the detail here is not really relevant. Current system can allow leaders to get most high medals rather than points that will not change medals. Considered that moderation will actually take longer in this case than the current system.

Second point - doesn't believe that the system is more fair to the students as the time will be spent in different ways.

Third point - why do we have the current system? Based on historical system of average of the top three. Supposed to create a friendly atmosphere between leaders because they can't influence each other's results through moderation. Some leaders might be upset by people moderating for high students in case it lowers somehow their own results. Diligence of the leader becomes important.

Key point of moderation is to make sure that no student goes down.

- Canada: Has been on both sides of this moderation system, both as a leader many times, and as part of an academic committee setting the problems. Also in the committee moderating between leaders and markers in cases of dispute. Often people are asking for points not because it is fair but because it is 'needed' to get over the threshold. Changes obtained by the leaders may move boundaries a little but one person will not cause that much difference. For ease of moderation, and to avoid asking for points that do not belong, the proposal should be supported.
- Australia: attends APhO, which already has a post-moderation system. Perception that at APhO the process is actually more harmonious than it is at the IPhO - shared view by at least a few other leaders from Asia.
- Georgia: purpose of this seems to be to control inflation of gold. Is inflation increasing or stable at the moment? If it is increasing, then it is crucial; otherwise it is less crucial.
- President: there is no real trend in this, it depends a lot on how they mark.
- Singapore: would like to support the proposal. A few reasons for that. First, eliminates fighting for grade boundaries, restores the system to dealing with points of physics. Increases in the gold have been spiky and has made life difficult for the organizers. Efficiency is less important than making the results correct and moderation time increase is important for this, so strong support for all elements of the proposal.
- Israel: additional issue to be raised. Many times as a leader, the markers have been asked for 2 points because of a huge lack of comprehension. Markers agree completely, but then offer 0.3, because there is pressure to control inflation of medals. If there is inflation, only the leaders with power get the points easier. In the APhO, this doesn't happen.- there is no incentive to restrict handing out points in moderation. Purpose of moderation is to arrive at correct marking - not 'beneficial' marking.

Vote: whether or not to A) vote on all proposals as a bloc or whether to vote B) in two tranches for 1&2 and then for 3. Results: A: 74, B:59 +7 total. 140 total votes were registered. Two thirds of those present is required.

Vote: In favour of all three proposals, or against? Results: 89 for to 54 against. The proposal was rejected.

7. Presidential Election: In the opening remarks, it was mentioned by the President that he will not be running for reelection after the end of the second term which is to be at the end of the IPhO 2018. The President explained that not only has it been half a lifetime's service, but 10 years is enough to sit in the same chair, and it is unimaginable that no one else will be willing and able to do the job of President. The President notes that a new President may bring a new approach to the role. The Secretary must be informed before March 31, 2018, of all nominations to be a candidate. A CV is also required to give some idea of background. If there is only a single candidate then election will be by default; otherwise continuing rounds of election will take place until someone has a majority.

8. Mark checking is no longer required due to the modified process for awards this year. The awards of medals and HM were finalized by negotiations with leaders. After a few minor changes the distribution of the awards of medals and HM were approved by acclamation. 64 students got a gold medal, 72 a silver medal, 102 a bronze medal and 73 students got an Honorable Mention. No absolute winner and the winners of the best experimental or best theoretical solutions were selected.

9. Jaan Kalda: EuPhO 2017 happened successfully. 20 countries, 91 students, will happen again in 2018 in Russia, hosted by Moscow Institute of Physics and Technology. Will be held in either May, or late June/early July. Artem Voronov invites everyone to Moscow to come to the EuPhO.

10. Canada: mostly we come to all work together to fix problems, but this time we owe great thanks to Prof Wang Yi from Hong Kong for his work to repair problem 4 single handedly. Applause from the IB.

11. Apologies from the organizers for the inconvenience during the program, and good wishes for the remainder of the stay and the trip home.

12. The meeting closed at 23:36.