

## Agenda of the IOC meeting, 2019-07-13 to 2019-07-14, Warsaw

Items on the agenda are divided into three categories according to the IOC rules of procedure:

- **Recurring items and Reports**
- **Motions for specific actions**
- **General discussions of new ideas and exchange of opinions**

Each item on the agenda includes the allotted time budget in parenthesis.

### 1) Opening (9:30)

Control of presence:

1. **Australia - Alan Allinson (AA)**
2. **Austria - Peter Poier**
3. **Belarus - Igor Timoshchenko**
4. **Brazil - Liara Guinsberg**
5. Bulgaria - Mladen Matev (MM)
6. **Canada - Ryan Lin**
7. **China - Chenghou Tu**
8. **Chinese Taipei - Yung-Yuan Hsu**
9. **Czech Republic - Stanislav Panos**
10. Georgia - Juansher Jejelava (JJ, arrives at 10:20 during LOC 2021 presentation)
11. **Germany - Florian Ostermeier (FO)**
12. **Hungary - Mihaly Homostrei**
13. **Iran - Dina Izadi**
14. **Korea - Young-Gui Yoon**
15. **New Zealand - Gavin Jennings**
16. **Pakistan - Farida Tahir (FT)**
17. **Poland - Lukasz Gladszuk (LG)**
18. **Romania - Victor Paunescu**
19. **Singapore - Teck Seng Koh**
20. **Serbia - Vladimir Velic**
21. **Slovakia - Frantisek Kundracik**
22. **Switzerland - Samuel Byland**
23. **Sweden - Lars Gråsjö (LG)**
24. **Thailand - Pornrat Wattanakasiwich**
25. **Ukraine - Zakhar Maizelis**
26. **United Kingdom - John Balcombe**
27. **USA - Elia Eschenazi (EE)**

26 voting IOC members at the beginning of the IOC meeting; bold: participates in the Problem Selection Process

EC members: Martin Plesch (MP), Timotheus Hell (TH), John Balcombe (JB), Samuel Byland (SB), Ilya Martchenko (IM)

Guests: Kent Hogan (Auditor), Sandu Golcea (SG, LOC 2020), Jana Lasser, Barbora Weszterova, Natalia Ruzickova, Radost Waszkiewicz (RW), Klim Sladkov (assistant to the treasurer), Tahir Khan (LOC 2021), representatives of new IMOs (see 3)

**Approval of the agenda:** Some people present did not get the emails regarding the agenda. It is sent to the ioc mailing list, which is based on this list of current IOC representatives and IMOs at <http://iypt.org/index.php/documents/>. Please send requests for changes to [office@iypt.org](mailto:office@iypt.org). Only the actual IOC member is supposed to be on the list, as confidential documents can be shared via the list. If someone else is nominated to participate at the IOC meeting, please ask the actual IOC member to have the relevant emails forwarded.

The agenda is approved *Vote: all for*

### **2) Auditor report of the Financial Report on the FY 2017/18 (9:45)**

Kent Hogen presents the financial report done by the IYPT auditors (Thomas Lindner and Kent Hogan). For the approval of the report see (7).

### **3) Applications for IMO status (20min) (starts at 9:50)**

- Croatia - Magdalena Živković (MZ): all for
- North Macedonia - Assen Kyuldjiev: all for
- Mexico - Luis Alfonso Guerrero Rodríguez: 26 for, 1 abstention by FO
- Greece - Apostolos, all for
- India - Shashikant Pandey (SP), all for
- South Africa - Don Duffield: all for

The original applications were handed in by India and Croatia only. All other new IMOs are asked to send us the original documents. Only once they are received, they will gain their status as IMOs.

Therefore there are now only 2 new valid IMO members with rights to vote at this IOC meeting: India and Croatia. Now there are 28 voting IOC representatives.

### **4) Future IYPTs (10:00)**

**IYPT 2020 - updates from LOC Romania:** presentation by SG. We look at two videos about the University and the City.

All IOC members will be contacted via personalized emails that should not be forwarded. One team leader should stay with the team, also a local guide will always stay with the team. Jurors and EC members will stay in the hotel.

SG is trying to make sure not to have an overlap with the IPhO. The IPhO starts on the 18th of July 2020. SG will discuss with the university and the EC about the date. The window is July 1st to July 18th.

Timisoara is reachable via airport, with some airports offering direct flights (for example Bucharest). There are buses from Budapest to Timisoara. Timisoara is a safe city. All fights will take place inside the university. Accommodation will be in twin rooms with a small kitchen and showers. The campus is inside the town, there are cheap buses. There is support by the Ministry of education and the university. It's about 10min walk from the hotel to the fight rooms. (JJ arrives, now there are 29 voting IOC representatives) Victor Paunescu will handle the visas, he has good contact with the embassy. Don Duffield asks for the date to be early. For the southern hemisphere countries it is problematic to shift the IYPT to later in July. MP and AA comment that usually the hosts need to organize IYPT during local holidays, for the dormitories to be available. AA remarks about making sure that there is no overlap with IPHO: We should accommodate any other competition, but no other competition should take precedence over our own competition. SG proposes to have cash payments. IM: cash payments are inconvenient for IYPT so we try to avoid them. The EC meeting will take place in November 2019.

### **IYPT 2021 - detailed presentation by Pakistan (10:30)**

Report by Farida Tahir (FT). Pakistan was accepted as the 2021 host at the IOC meeting in 2018.

The IYPT will be hosted in the second largest city in Pakistan at the Lahore University of Management Sciences, School of Science and Engineering. It's a 10 minutes ride from the airport. The largest lecture hall has a seating capacity of 200 persons, there are 10 classrooms with seating capacity of 45 people. For the opening and closing ceremony there is an auditorium with a capacity of over 1000 people. For student accommodation, there are 6 male (1200 places) and 4 female (600 places) dormitories, everything within 5 min walking distance from the venue.

The hotel for jurors is around 3 min walk from the venue as well. There are other hotel options around 30min travel away.

MP: is it possible to accommodate everyone in the closer hotel/guesthouse?

FT: yes - there is space for up to 80 jurors.

2 half-day excursions and 1 full day excursion are planned.

For the IOC meeting 50-60 people can be accommodated. Total expenses are planned at about 240.000 Euro. The proposed amount per team paid by IYPT to the LOC is 1250 EUR.

MP: the precise amount per team and per visitor paid by IYPT to the LOC is to be discussed and agreed on with the EC and IM.

MP: For 40 teams we need 13 PF rooms. FT: we can provide 15.

IM: Is there a possibility to get the funding from elsewhere if you will not receive them as presented? FT: We will receive all the funding presented.

FT has prior experience in hosting large conferences, e.g. a women in physics conference.

AK: What is the weather like? FT: similar to as here in Warsaw, mild climate (27 - 35 Degrees Celsius). All rooms are air conditioned.

PW: How save it is to travel? We need to explain to the parents.

FT: When you go to the city, Pakistan is a very safe place. People who come from abroad often change their minds about the safety.

MP: The whole competition is in a closed campus.

SB: I trust the organization, but the ministry in Switzerland strongly discourages people from traveling to Pakistan, so the team will not be able to come. I suppose other countries may have the same problem.

SP: How easy is it to get a visa to Pakistan for India?

FT: The institute can help with visa, also for India.

EE: Can you provide a list of international conferences that have been organized by the institute?

FT: There are many such events being organized.

MP: There is a difference between traveling as an individual tourist and to an event organized by a respective authority, and the Slovak ministry does not see a problem in taking students to such an event - maybe this is the case of other countries as well.

MP: Maybe an EC member can go to Pakistan for a pre-inspection visit before the next IOC meeting.

LG: We have mixed teams and they need to work together, will that be possible?

FT: Yes, classrooms will be available for the teams to work.

MP announces a 20 min "10min coffee break" at 11:20.

### **IYPT 2022 - detailed bid by Czech Republic (vote)** (starts at 11:45)

The tournament would be held in Prague in 3rd week of July. The estimated number is 34 teams, can be extended by 1. The schedule is for 8 days, 1st day arrival, 8th day departure. The Partner of the LOC is Technical University of Prague, the international airport is in Prague, a 30 min ride from the airport to campus. Accommodation for all is planned on campus, everything is walking distance from each other, near station. Less than 30 min away from the city center.

MP: To which level are the supporters confirmed, is there any commitment of the partners?

JJ: We can say with 90% confidence that we can organize the tournament in Georgia.

LG: This is about how likely the LOC can find sponsors, that depends on the local dynamics - the sponsors will not promise funding 3 years in advance.

MP: Now either we accept the detailed bid from Czech republic (as we have planned in the agenda, because they were invited to give a detailed bid) or we do not accept the bid as it is and then we can hear the bid from Georgia and vote afterwards.

*Vote to accept the bid by Czech republic to host in 2022: 10 for, 7 against, 12 abstain.*

The bid by Czech republic is not accepted.

### **IYPT 2023 - request for bids to host**

USA:

EE: We can not host without AIP support, I am planning to have a meeting with the president. The Benjamin Franklin Institute in Pennsylvania would be able to fund and host, but we don't have a commitment from them. There are more universities in our city. The budget is half a million USD and if we don't have the money, we don't want to do the tournament on a tight budget.

### **proposal by Georgia to host in 2021 or 2022 (vote)**

JJ proposes Georgia as a 'backup plan' to host in 2021 or 2022 in Tbilisi, as in the past years at times the hosting of IYPT was at risk and having a backup would have been an important option. For 50.000 Euro a minimalistic and for 70.000 a full tournament can be organized.

JJ: We organized IYNT. We can not give written guarantees but it can be a backup plan.

MM: IYNT was a much smaller event, only 16 teams.

JJ: We have a written commitment of the faculty that they can provide rooms for PFs.

Dormitories are of good quality, recently built, the hotel would not be walking distance from the venue but transport would be provided. Number of teams: 35 +- 2, 12 groups.

MP: To organize a backup on short notice if current LOC has troubles with organizing, it may be very difficult.

JJ: It's of course not possible to do it within only 2 months.

MP: Scaling to twice as large tournament does not mean only twice as large expenses.

IM: The total budget for IYNT 2018 in Georgia with 15 teams was below 40k Euros.

MP: Would it be of any help to Czech Republic or Georgia to have a decision now? Otherwise let's not make any specific decision and ask both countries to prepare more detailed bid next year.

*Motion to ask both Czech Republic and Georgia for more detailed bids next year*

Vote: 23 for, 0 against, 6 abstentions.

### **5) Motions by IOC Members (12:25)**

**Juansher Jejelava:**

- **add the poster session at IYPT 2020**

JJ presents the motion:

- to have more prizes, it is easier to fundraise money if the students bring some prize home.
- A problem may not have been presented and you may want to show it: a poster is an opportunity
- An argument against such ideas is usually that there is no time, but we can do this online or upload videos. This is an additional load on the jury.
- It should not be mandatory

MP: this can be a suggestion for the LOC 2020, for a change of regulations there would have to be a more detailed proposal. If we want to have qualified decisions on the best posters,

the jury load may be troublesome. We can think about more prizes based on the ranking, like an honorary mention. If we want a poster session, we need a place in the schedule.

LG: We may do it after PF5.

JB: Normally there is no free time when there is a full day excursion.

SG: I have had a similar experience with a poster session, it was chaos and anyway the best poster was by a team who won a prize anyway. I'm against the idea.

MP: This is a strong statement of the LOC 2020.

MZ: Also, posters put extra work on the students.

JJ: We can limit the poster session: only a problem that was not presented. I am not sure if the top teams want to put extra effort in the posters.

MP: I don't see a difference between uploading your presentations which are done anyway. It is reasonable to give the teams an opportunity to share their work with others, this can be discussed.

MP: If the LOC wants to do a poster session, I am happy to put it into contract, but if we now vote on it then we have to do it and it is extra load on everyone.

*Vote on motion by JJ: Adding a poster session at IYPT 2020: 1 for, 13 against, 15 abstain. The motion did not pass.*

- **add “the best Reports” or “the chosen reports session” at IYPT 2020**

JJ: Maybe the Jurors during the fight make notes and then there would be 1 hour report session.

RW: It would still be the winners of the whole tournament.

MP: That is why we have the 5th round, where a team can choose what to present.

LG: There can be evaluation of best fight

RW: This will still probably be the highest ranking teams.

MM: We can have individual ranking after the 5th fight

MP: We had this already, either it was the captain of the winners or of one of the best teams.

JJ: the idea is to make IYPT a science communication event and not just a tournament

MZ: Would it not be more effective to pick one report and give them more time to make a lecture from it?

AA: I am against all of this, I think that the students are extremely busy and if it is organized they would want to do it, but they are exhausted already. We can expand the prizes, but let's not make it an extra effort.

MP: The 5th round allows the teams to present their best report.

JB: If the reports are put online, broader audience can access them.

TH: How about highest improvement in ranking of a team between the tournament?

MP: with growing number of teams we have a lot of teams below the bronze medal and they are not on the same level. Let's discriminate the second half of the teams as well. I

have ideas on how to introduce HM, I will do some calculations on that but I don't want to discuss it now.

Vote on the motion by JJ: 1 for, 17 against, 11 abstain

**Dina Izadi:**

- **Introduce a joint program with IYPT, “Linking The Art with Physics“.**

DI presents the program.

IM: there can be a small working group in this and that group can then come and discuss with the EC.

- **Change the regulations section XIII to give "encouragement medals" to all participating teams that do not receive any other medal.**

MP: We should do a specific calculation on how many teams should receive such medals and then proposed to the EC and then EC will discuss it in advance, including other ideas like the idea about awarding teams which have improved their ranking the most, an IYPT participation badge or something based on how many fights the teams have won.

DI agrees with withdrawal of both motions and there is no vote on them.

MP announces lunch break at 13:00. We'll continue in 45min.

## **6) Report by the Executive Committee: (13:50)**

MP gives a report on the EC's work, starting with what was discussed at the EC meeting in November in Warsaw. There were some misunderstandings that delayed the signing of the contract between LOC and IYPT, but eventually a compromise was found.

MP raises the general issue of when a contract should be signed and at what point alternatives should be looked into.

LG disagrees strongly with how the situation was presented by MP.

EE asks about what wording was discussed.

MP: It was about the number of Jurors that would be selected by the EC (IYPT suggested 40). LOC changed the wording by quoting the statutes, which say that it's organized by LOC and EC. IYPT accepted it, believing in the promise that this would not change anything in practice, as having these jurors is nothing new in IYPT, and even Leszek applied to be one of these jurors.

LG disagrees: Who selects the Jurors and who pays for them are two very different matters.

EE: It should be very clearly stated to the LOC what is expected.

LG: To us it was clear in the contract.

MP: Noone questioned the 40 Jurors during the EC meeting whilst details were discussed. We had trouble signing the contract in two subsequent years for different reasons, and that needs to be prevented.

LG: Most of the delay was due to miscommunication - how long did it take you to sign the last version of the contract?

MP: We needed to sign an annex to the contract and the annex was not coming. Then I signed the contract as it was and was promised to get the annex - this was a big gesture. I signed it only after all independent jurors that were registered got the invitation letters from the LOC to make sure they will be accommodated.

MP is showing a version of the contract from November 19th, sent via email by Leszek, after it was accepted by WTU lawyers. In this version, the accommodation of 40 jurors was explicitly mentioned. This was not an issue during the following discussions and at some point was changed by the LOC to the much more generic wording. To the EC the interpretation of that wording was the same - as that number of jurors is needed to run the IYPT. It was expected that the LOC was aware of this.

LG: There were many different changes on both sides before signing the contract. Then the contract was sent to France, as this was the official address and the contract cannot be sent to any other address.

MP: There was no reason to send it to France, but could have sent directly to me, as I discussed with Jerzy and others many times.

EE: It is important to avoid it in the future, we need to have a template of the obligations of the LOC

MP: We have all previous contracts on the web, so it's very transparent and clear what we expect.

EE: The LOC should agree to the obligations much earlier than March and then when a problem arises there is enough time.

MP: The contract was supposed to be signed during the EC meeting, we trusted Leszek that the contract will be signed and tournament would be organized. It is not clear how to solve such situations in the future.

MZ: The tournament still happened. We should understand that bureaucracy is difficult.

MP: We need a legal backup, to encourage teams to buy tickets.

IM: We must guarantee that IYPT will take place, in good or bad conditions.

EE: It is a lot of stress on people who need to buy tickets in advance. There must be a balance on the understanding of difficulties and legal backup. There must be steps to make the host comply with their obligations.

MP: We have copies of old contracts and we change only the number of teams and jurors and then negotiate technicalities. It is more than clear what is required from the LOCs. For the future organizers, if there are details in the contract that you feel need to be changed, please let us know.

LG: The reason for not signing the contract at the EC meeting was that the IYPT refused to pay 1250 EUR per team to the LOC.

TH: When we first discussed the fees for 2019 in the EC we disagreed with the steep increase proposed by the LOC (see EC minutes from 2017). MP informed Leszek via E-Mail (dated March 4<sup>th</sup>, 2018) of the EC's suggestion of giving higher fees to the LOC 2019 than in the last year, but not as high as the 1250 Euro as suggested by the LOC 2019.

There was probably an unfortunate misunderstanding during the 2018 IOC meeting when Leszek asked whether the promises made to him would be kept. MP agreed, but thinking of the numbers in the email, while Leszek was likely thinking of different numbers.

When EC realized this confusion during the November 2018 meeting, EC agreed after a long discussion to increase the fee to 1250 Euro to ensure the IYPT 2019, as originally asked for by the LOC (see EC minutes from 2017).



As a result of this year's problems, work was started on a list based on past contracts, inspection reports etc. that will eventually be published on the website to help any future LOCs to avoid misunderstandings like they happened this year.

EE: Whoever is presenting a bid should go through that list, make it clear who is going to cover what.

MP: Our understanding is that providing a bid for hosting is accepting contracts from the past and doing just technical changes or changes that were discussed. If there is any other suggestion on what to do better please tell us. I do not want to go into details, but I deeply disagree with some statements by LG.

MZ: Can the EC meeting already in September to have more time?

MP: No, as new EC members start their term in November.

MP: We discussed a motion by FO not to have 2 PFs per day, we agreed that no team or juror should have 2 fights of 4 on the same day. It was also agreed to track how long each phase of the PF takes. We lose times by breaks.

TH: And also when jurors are late. The median stage takes about 75 minutes to finish. If there are only groups of 3 we should expect that the round takes 4 hours until all teams and jurors are done, 5.5 hours when there are groups of 4.

MP: We will further analyze the statistics.

MP: We changed our mailing lists. The more than 100 addresses that were on [ioc@iypt.org](mailto:ioc@iypt.org) were moved to [info@iypt.org](mailto:info@iypt.org), where we will share general public information. The ioc mailing list will serve only for the IOC announcements, as some sensitive (e.g. financial) material needs to be sent. On that list we only accept a single email address per IMO. If a change is needed, the current IOC representative should inform us via email to [office@iypt.org](mailto:office@iypt.org).

### **DIBaLI (Development of Inquiry Based Learning via IYPT) Erasmus+ project - call for cooperation**

Several IMOs applied successfully for an EU grant, the aim is to look how IYPT develops soft and hard skills in students via questionnaires. 6 countries are involved.

EE: We would like to take part in the project, we are preparing a summer camp with a similar aim.

RW: How does this help IYPT?

MP: If there is a big project, it helps IYPT to be recognized by ministries etc. It is an activity by people involved in IYPT, IYPT itself is not taking part in the project.

JJ: Can we receive a more detailed report?

MP: Sure, for those who would be interested I will provide more information.

### **EC motion to change the regulations, part "IV. The Jury"**

- **old:** "The Jury is nominated and organized by the LOC in cooperation with EC."
- **new:** "The Jury is nominated and organized by the EC."

LG: I do not agree with the proposed solution, as there are local jurors. It should be included that the EC and LOC cooperate with each other. Selection of local jury is a problem if it is purely EC's responsibility.

MP: Since a few years, the responsibility for the jury is with the EC. Noone objected and the LOCs took it as a fact, this year, this was the first time that there was a problem. In the RoP of JC it says that we accept local jurors. And the only condition for taking a juror is education in physics (apart from negative past experience) so there is no further selection. This change is so to reflect the current situation, not introducing anything new.

LG: The regulations state that the LOC should be asked for cooperation, so the EC did not comply with the regulations by not discussing with the LOC.

MP: Till now there were no problems about this and the LOCs understood how it works. LOC suggests local jurors, JC accepts them.

TH: It's unclear how to interpret what precisely cooperation means. To us it is clear how we set up the jury to have a qualified jury, we have procedures on how to become a juror, so we want to make the regulations more clear and to keep us from having similar misunderstandings. I agree that maybe this statement may have been interpreted differently by the LOC and that there may not have been enough cooperation.

JB: I sympathise with LG as it is not clear in the regulations, that is why we want to avoid this ambiguity.

MP: If we leave it as is there will be more misunderstandings.

MP: We did cooperate with the LOC by for example having Maciej Kolwasin the final Jury, but the cooperation needs to be from both sides - for example, the LOC did not register the local jurors in the CC system even though they were asked to do it a month before.

EE: I think the local jurors need to go through the same procedure as all other jurors.

LG: I would like to suggest a solution on how to cooperate better between IYPT and LOC. I suggest that JC includes one LOC member to be informed on what is going on. In my opinion setting up the jury is not transparent now, so this would make it more transparent.

RW: The JC currently is a subcommittee of EC and not IOC, that is why we suggest that the JC would be a subcommittee of the IOC. Everything will become more transparent.

MZ: The statement is ambiguous. If the sentence was specified in more detail it would maybe help.

MP: The LOC should be detached from IYPT. The Jury is a very specific thing, we also receive feedback and the JC must be a closed and trustful unit. The Jury should be completely detached from the LOC, even though we accept local jurors as a part of the jury. There are RoP of JC that are open, you can suggest changes to it. I suggest that we have this sentence in the regulation and details will be specified in RoP JC, you are welcome to suggest changes.

MP: If you are happy about how it is running now, I suggest you to vote for the change. If you are not happy with how it is running vote against.

EE: The issue is information transmission and transparency, not whether we are happy or not.

Suggestion for amendment of the motion by RW and LG: The Jury is selected by the Jury Selection Subcommittee (which is a subcommittee of IOC).

JB: The JC consists of two members of IOC and 1 member of the EC.

Vote for amendment to the motion: 1 for, 10 against, 18 abstain, the amendment did not pass.

Vote for the original motion: 17 for, 3 against, 9 abstain, the motion did not pass (to reach a 2/3 majority a total of 20 votes in favour of the 29 valid votes would have been needed).

## 7) Report of the Treasurer: (15:00)

### **Auditor report of the Financial Report on the FY 2016/17**

IM would like to have the following in the minutes: The extra documents requested by the auditors were requested after the IOC meeting 2018.

MM: There could be a safety deposit collected from the LOCs.

MZ: What is the percentage of money that flows to the LOCs?

MP: IYPT collects the money and from each fee a specific amount goes to the LOC.

LG: 50% of the money needed to organize a tournament is collected in the fees and that is received only later. IYPT should pay for the registered teams sooner so that LOCs have the necessary funds before the IYPT.

IM: Many services need to be prepaid. But we also don't want to prepay for teams that are not coming.

TH: I think the expectation has always been that there are to be local sponsors as well to cover the costs of an IYPT. Usually the fees are just a minor part and the LOC should primarily use the money from sponsors. It is difficult to get sponsors for the IYPT as an organization, but from my experience LOCs in the past were able to attract local sponsors.

RW: Also the sponsors transfer the money very late.

IM: There were risks because many teams only pay shortly before the deadline which complicates the organization if the number of teams is not known.

Motion: accept the financial report on FY 2016/17: *vote*: 26 for, 3 abstain. The FR is accepted.

### **Financial Report on the FY 2017/18**

Motion: accept the financial report on FY 2017/18: *vote*: 27 for, 2 abstain. The FR is accepted.

### **Budget for the FY 2018/19 / Motion to approve the Budget for the FY 2018/19**

GJ has reservations about cooperating with one of IYPT's direct sponsors, as their business model is based on taking large sums of money from students' parents and making promises that the students will be accepted to prestigious universities. NZYPT was approached by the company before and decided not to cooperate.

Motion: Accept the budget for FY 2018/19: 28 for, 0 against, 1 abstain

### **Budget for the FY 2019/20 / Motion to approve the Budget for the FY 2019/20**

MP: This year we have paid more than planned to the LOC, so when discussing the amount for the LOC, also previous years should be looked at.

SG: I am okay with the fee proposed in the budget.

IM: In the long term the reserves should be slowly adjusted to 70.000 Euro and not grow any further.

Motion: Accept the budget for FY 2019/2020: *vote*: 28 for, 0 against, 1 abstain

### **Further increase of Jury travel support in the Budget for FY 2020/2021**

TH explains that IYPT needs experienced jurors (55 experienced jurors were needed for round 1 and there were 56 EJ available), and the jurors need to have rounds off. The last time we increased the amount it was because IOC members ask for it in the IOC meeting in Singapore. A further increase of this chapter should be discussed here too, as it's a good way to increase the quality of the jury and therefore the quality of the tournament. As a substantial increase is suggested, there should be a discussion in the IOC before the EC plans the increase in the budget. Furthermore we should discuss increasing the maximum sum given to a single juror.

AA: People from the other side of the globe often spend 2k Euro minimum. 500 Euros is nice, but still means that they need to spend a lot of their own money in order to come.

MP: There was no IOC decision on the maximum amount per juror in the past, it was just a decision by the Jury Committee.

LG: Would there be a possibility to increase the amount of jurors per room to 6?

TH: With the current number of jurors that would not be possible unless all jurors work all the time.

LG : There is underspending in the Jury travel support so why to increase the amount?

MP: Sometimes jurors manage to get support from elsewhere even if they originally asked for the support or they do not manage to come. We pay only after the competition.

Motion: Increase the jury travel support budget for IYPT 2021 to 8000 EUR. *Vote*: for 27, 1 against, 1 abstain.

MP: If we leave the maximum amount up to a JC decision then it can be adjusted based on the location and on the person etc.

AK: I would prefer to have more flexibility for the JC.

There is no vote on the maximum amount to be awarded to a juror.

IM wants to stress that reasonable planning is needed to avoid underspending.

## **8) Report by the Jury Committee (16:35)**

MP reports on the JC work in the past year. Noone outside of the JC knows what scores the individual jurors get from the teams. Some teams always give perfect grades to all jurors, other teams are very critical. This is accounted for when calculating jurors' scores.

The JC tries politely to make sure that jurors with bad feedback are not used in the jury too often.

This year 4 out of the 5 jurors with the worst feedback from last year were not deployed in the jury and the 5th one was judging only occasionally.

The statistical data of each juror is then delivered to them (percentile category, anonymized grades and comments).

The JC meeting took place in September in Bratislava. There was a discussion about adding a gong or other acoustic announcement of the end of a phase.

There were also scoresheet changes and changes for the IYPT CC jury planner discussed.

JJ: If a team's ranking is close to each other, it is difficult to stay objective. There may be a positive bias of jurors due to this.

MP: There are obvious conflicts of interest like nationality or country of residence. But if we wanted to account for the ranking it would be very difficult and we trust jurors to be honest. It is not fair to put conflicts of interest that are not objective because a juror does not want to judge some team and rather see other teams.

IM: There is a lot of noise. Can we have data on that?

MP: The same people appear on the top of our rankings each year. The same on the bottom, together with many of the local jurors.

IM: What is the amplitude?

MP: As far as I remember it happened only to one chair that their grades fluctuate widely. It was a very specific situation, due to unforeseen circumstances. We go into more detail in such cases. But the results are very stable.

EE: We could look at the evaluation over the score given to the teams. Is there a correlation?

MP: We looked in and there is no.

MP: There were ideas about power pairing but no specific idea has been proposed.

IM: What exactly do you mean by power pairing?

MP: Teams with similar ranking fighting together.

TH: The Jury planner includes many parameters, we are trying to load jurors reasonably equally. We try to make sure that the same chair does not meet the team twice, no juror judges a team more than twice, there is a penalty for the same juror judging the same team twice. There are also other weights. There is also bias of the juror compared to other jurors in the same jury and the planner tries to minimize the value of bias of the jury. Also no 2 jurors from the same country in a jury, equilibrium of TLJ and EJ. Also, if there are 2 TLJs form a team then this needs to be handled manually so that at least one of the is free.

IM: The bias fluctuates very much.

MP: I disagree.

TH: We can take into account also biases from the previous years, that is how the system is built. If it fluctuates and the average is 0, then it doesn't change anything anyway.

The code for IYPT CC is publicly available and includes the jury planner algorithm.

EE: How are the chairs selected?

MP: There is a pool of chairs agreed on by the JC, which takes into account the feedback and time management as well as language skills. Then the system optimizes from the pool of chairs.

TH stepped down from his JC position and there was an open call to the IOC in November, Eric Schertenleib is the new JC member.

Selection of the final jury: no conflict of interest, max 1 juror per country, feedback, IYPT seniority/ experience. New people may also gain much more experience in the finals so that may also be taken into account.

### **9) Report by the Disciplinary Committee (17:17)**

JB, the new DC chair, reports. The old RoP of DC have never been used and there will be a new version. JB will propose a simplified version that is to be decided by the EC and will then be presented to the IOC.

A small committee is preferable in order to be able to make quick decisions.

Two people are interested in being on the committee: Yung-Yuan Hsu and Gavin Jennings.

Apart from PFs themselves, also conduct at the competition can be subject to DC.

If teams copy something from the internet and claiming that they have done what they have not, that is cheating and should be judged by the DC and not just by lowering a grade.

MZ: If anyone is banned from a competition it should be the person and not the whole country or team.

MP: The new RoP will be produced and discussed with the EC and then reported to the IOC.

The existence of DC may be announced for example at the Jury Briefing. When there is a complaint, we inform the persons about whom to address.

MP: Whatever can be solved on site should be solved on site by the chair. During a PF teams should obey the chair.

SG: Usually you only find out about a cheating only after the PF or competition.

MP: It is important that there is a penalty for cheating.

### **10) Report by the Committee for Problems Selection (17:50)**

Report by SB: review of 2019 problems and the tentative problem set. There are 31 problems that got at least 2.75 points.

MP: Is there a correlation between the ratio between the number of times a problem was rejected and accepted versus the grades the problem got during selection?

SB: I will look it up.

IM: In the long term, no.

3 IMO's (of which Bulgaria and Georgia are present) which were accepted before the IOC meeting 2019 can not take part in the discussion and vote on the tentative problem set. This includes also the new IMO's, so also Croatia and India.

### **11) Approval of the set of problems (4h)**

Motion: Approve the set of problems as they are: 10 for, 15 against. The tentative set is not accepted as is.

Motion: we continue on voting on the set of problems after the dinner: 7 for, 18 against.

End for today: 18:14

## **Day 2:**

Of the IOC members allowed to participate in the Problem Selection Process 23 (after vote on P1: 24, after vote on P3: 25) are present, therefore 12 (after P2: 13) votes in favour are needed for a vote to pass:

Australia - Alan Allinson (AA)

Austria - Peter Poier (present after the vote on problem 1)

Belarus - Igor Timoshchenko

Brazil - Liara Guinsberg

Canada - Ryan Lin

China - Chenghou Tu

Chinese Taipei - Yung-Yuan Hsu

Czech Republic - Stanislav Panos

Germany - Florian Ostermeier

Hungary - Mihaly Homostrei

Iran - Dina Izadi

Korea - Young-Gui Yoon

New Zealand - Gavin Jennings

Pakistan - Farida Tahir (FT)

Poland - Lukasz Gladszuk (LG)

Romania - Victor Paunescu

Singapore - Teck Seng Koh

Serbia - Vladimir Velic (present after vote on problem 3)

Slovakia - Frantisek Kundracik

Switzerland - Samuel Byland  
Sweden - Lars Gråsjö (LG)  
Thailand - Pornrat Wattanakasiwich  
Ukraine - Zakhar Maizelis  
United Kingdom - John Balcombe  
USA - Elia Eschenazi (EE)

### **Problem 1: Microscope**

Motion by LG: Replace the problem with “Inconspicuous Bottle”

16 in favour, 2 against, 5 abs.

“Inconspicuous Bottle” is the new problem 1

Motion: Remove parts of the wording: “Put a lit candle behind a bottle. If you blow on the bottle from the opposite side, the candle may go out, as if the bottle was not there at all” (delete).

Explain the phenomenon.

7 in favour, 6 against, 11 abs.

The motion did not pass.

### **Problem 2: Swinging Sound Tube**

Motion: -

### **Problem 3: Magnetostriction**

Motion by LG: Change the title to “Singing Ferrites”

23 in favour, 1 abs.

Problem 3 is now called “Singing Ferrites”

### **Problem 4: Sweet Mirage**

Motion: -

### **Problem 5: Saxon Bowl**

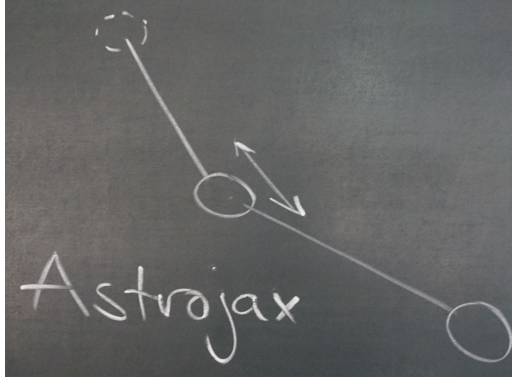
Motion: -

### **Problem 6: Balls on a String**

Motion by LG et al:

- Change the wording to: “Put a string through a ball with a hole in it such that the ball can move freely along the string. Attach another ball to one end of the string. When you move the free end periodically, you can observe complex movements of the two balls. Investigate the phenomenon.”
- Include the figure: Astrojax





Vote: all in favour

The problem's text is changed and a figure similar to the one depicted will be added.

### **Problem 7: Soap Membrane Filter**

Motion: -

### **Problem 8: Playing Card**

Motion by LG: change the wording to: "A standard playing card can travel a very long distance provided that spin is imparted as it is thrown. Investigate the parameters that affect the distance and the trajectory."

19 in favour, 5 against, 1 abs.

The motion passed, the wording is changed.

Motion: Accepting the "Playing Card" as the problem no. 17.

24 in favour, 0 against, 1 abs.

### **Problem 9: Magnetic Levitation**

Motion: -

### **Problem 10: Conducting Lines**

Motion by LG: change the wording to: "A line drawn with a pencil on paper can be electrically conducting. Investigate how "dark" the lines have to be and other characteristics of the conducting lines."

Motion by MP: A line drawn with a pencil on paper can be electrically conducting. Investigate the characteristics of the conducting line.

23 in favour, 2 against, 0 abs.

Motion passed, the wording is changed (Motion by MP).

### **Problem 11: Heat Ammeter**

Motion: Change this problem to problem "Invent yourself" and put it on the beginning of the set of problems.

23 in favour, 2 abs.

The motion passed, the problem is renamed, moved to the top. The numbers of problems 2-16 will be fixed by the PSC.

### **Problem 12: Drifting Speckles**

Motion: -

### **Problem 13: Polygon Vortex**

Motion: A stationary cylindrical vessel containing a rotating plate near the bottom surface is partially filled with liquid. Under certain conditions, the shape of the liquid surface becomes polygon-like. Explain this phenomenon and investigate the dependence on the relevant parameters.

23 in favour, 1 abs., 1 missing

The motion passed, the wording of the problem is changed.

### **Problem 14: Friction Oscillator**

Motion: Remove the part of the original statement, new wording is: "A massive object is placed onto two identical parallel horizontal cylinders. The two cylinders each rotate with the same angular velocity, but in opposite directions. Investigate how the motion of the object on the cylinders depends on the relevant parameters."

21 in favour, 1 against, 2 abs.

The motion passed, the wording of the problem is changed.

### **Problem 15: Falling Tower**

Motion: Remove part of the wording, new wording is:

"Identical discs are stacked one on top of another to form a freestanding tower. The bottom disc can be removed by applying a sudden horizontal force such that the rest of the tower will drop down onto the surface and the tower remains standing. Investigate the phenomenon and determine the conditions that allow the tower with the maximum number of discs to remain standing."

22 in favour, 0 against, 3 abs.

The motion passed, the wording is changed.

### **Problem 16: Pepper Pot**

Motion: -

### **Problem 17: Artificial Cat**

Motion:

Design and build a passive device that just like a cat, always lands “on its feet” in the same position (delete), irrespective of the way it has been dropped. Investigate how your device behaves under different circumstances.

Motion: Replace the Problem Artificial Cat with the Problem Cork Tumbler  
14 in favour, 7 against, 4 abs.

The motion passed, the problem is replaced.

### **Cork Tumbler**

A prolate ellipsoid with truncated apexes is placed vertically on a horizontal plane. Depending on the strength of an impulse applied to the upper part of the ellipsoid it can either simply fall or continue to(delete) rotate. Investigate the motion of the body.

Motion: Replace the Cork Tumbler with the **Viewing Equipotential Lines**  
9 in favour, 14 in favour, 2 abs.

The motion did not pass.

Motion: Replace the Cork Tumbler with the **Nitinol Engine**  
17 in favour, 4 against, 3 abs.

The motion passed, the problem 17 is Nitinol Engine.

Motion: Accept the formulation as it is:

“Place a nitinol wire loop around two pulleys with their axes located at some distance from each other. If one of the pulleys is immersed into hot water, the wire tends to straighten, causing a rotation of the pulleys. Investigate the properties of such an engine.”  
20 in favour, 0 against, 5 abs.

Motion: Accepting the problem set as it is, excluding the numbers  
25 in favour, 0 against, 0 abs.

10:24 The motion passed, the problem set is accepted.

### **12) General discussions of new ideas and exchange of opinions (10:50)**

MP gives an update on our relationship with the IPHO. There were some tensions in the past. Now there is a new President, Prof. Rajdeep Singh Rawat, of the IPhO and communication has improved a lot. Prof. Rawat is invited to the IYPT.

## **Farida Tahir: visa-application and visa process & Problems with IYPT CC**

There were issues with getting a visa for the team of Pakistan in both Poland and last year in China. Sometimes an invitation letter with a barcode is required. The LOC should help with these matters, providing information on what is required.

MP: An Invitation Letter can be prepared by the CC system, therefore it is important to fill all personal information into the system. Regarding the visa process we do not have any other power.

LG: The IT team can integrate wishes concerning invitation letters into templates in IYPT CC, but will need the information on what is necessary from the teams in time.

MP: Problems with visa appear every year.

DI: The most important issue is that the invitation includes a statement about the accommodation including contact information of the LOC.

When registering teams, IYPT 2019 did not appear active. MP: There are deadlines set. An account can be set up at any time, but registering participants is limited to the deadlines.

Canadian YPT: Invitation to subscribe to their Youtube channel

<https://www.youtube.com/channel/UCIP4kD-KG9QAZORIFCoTuVQ>

The IOC meeting ends at 11:06.