

Meeting of the IUPAP Executive Council and Commission Chairs and Associated Meetings

DAY 2

Tuesday, 15th October 2020, 12am
Meeting organised in remote by ZOOM

1. Michel Spiro, President
2. Silvina Ponce Dawson, President designate (acting)
3. Rudzani Nematudi, Associate Secretary General
4. Kwek Leong Chuan, Deputy Secretary General
5. Monica Pepe-Altarelli, Vice-President at Large (Centenary)
6. Gillian Butcher, Vice-President at Large (Gender Champion)(Acting)
7. Nithaya Chetty, Vice-President at Large (New Members)
8. Vitaly Kveder, Vice-President at Large (Outreach)
9. Rahul Pandit, Vice-President from Commission Chairs
10. Rolf Haug, Vice-President from Commission Chairs
11. Laura Greene, Vice-President from Commission Chairs
12. Claes Fahlander, Vice-President from Commission Chairs
13. Roberto Nardi, Vice-President from Commission Chairs
14. Peter Mohr (C2)
15. Sunil Gupta (C4)
16. Rolf Haug (C8)
17. Burkard Hillebrands (C9)
18. Heidi Shellman (C11)
19. Claes Fahlander (C12)
20. Sekazi K. Mtingwa (C13)
21. Roberto Rivarola (C15)
22. Minh Quang Tran (C16)
23. Tsuneyuki (John) Ozaki (C17)
24. Bruno Nachtergaele (C18)
25. Gerard Gilmore (C19)
26. David P. Landau (C20)
27. Roberta Ramponi (AC1)
28. Nils Andersson (AC2)
29. Mark Hamilton (AC3)
30. John Damilakis (AC4)

Observers:

31. Lucilla de Arcangelis, C3 Secretary
32. Jens Vigen, WG2 Chair
33. Jun'ichi Yokoyama, AAPPS Representative
34. Ahmadou Wague, AfPS Representative

35. Yunkyu BANG, APCTP Representative
36. Luc Bergé, EPS Representative
37. Stuart Palmer, EPS Representative
38. Duarte João da Costa Graça, IAPS Representative
39. Dominic Hurley, IOP Representative
40. Anne Thieme, ISC Representative

IUPAP Secretariat:

- Sun Han, Assistant Director, World Scientific Publishing Company
- Maitri Bobba, Senior Assistant Manager, NTU Institute of Science & Technology for Humanity (NISTH)

9. Review of the previous day.

The President recapitulates main topics of the previous day. Major current challenge is the search of a new Secretariat office. Whilst looking for it, IUPAP will become an association under the Swiss law – In Switzerland it is possible to transfer and receive money to and from all around the world, and this is a necessary requirement for the Union. The headquarters might be then hosted by the University of Geneva; but we can explore also other options, like India or South Korea, as it was proposed yesterday. As we are a global association, we can have different activities in different geographical locations: the website based in India (or Latino America as Silvina will suggest), the association in Switzerland and the office in another country – this fits well with the nature of IUPAP. Yesterday we have also started to prepare our to-do list. Regarding the prolongation of positions, Peter Mohr (Chair C2) asks which is the procedure if a Commission member cannot keep his/her role and needs to be substituted – is the substitution done inside the Commission or has to be approved? The President explains that the change needs to be approved. That issue will be added in the to-do list: a reminder will be sent to everybody with information about the right procedure for the extension of members or the appointment of temporary officers or members.

10. Working group reports.

The President explains that all the reports are on the Google Drive - There is no time to discuss all WG results, but participants can consult the documents. One of the working group, however, is under construction, the Working Group on Physics and Industries (WG16). The President asks K.S. Narayan (Chair) to report.

Working Group on Physics and Industries (WG16)

The working group mandate is *“To assist in the worldwide development of physics, to foster international cooperation in physics amongst academia and industry, and to help in the application of physics toward solving problems of concern to humanity”*.

The group started formally in November 2019, and it is composed by:

- Christophe Rossel (IBM Research-Zurich, Switzerland)
- Didier Roux (Académie des Sciences, France)
- Nisha Holla (C-CAMP, India)
- Andranik H. Sarkissian, (PLASMIONIQUE Inc., Canada)
- Pablo Garcia Tello (Spain-Belgium-CERN) (General Atomics Aeronautical Systems, Inc., USA)
- K.S. Narayan (JNCASR, India)

The first task for the group is to co-opt other members, to better represent all regions.

Main objectives are:

- To explore expanding involvement of the Physics Community outside Academia, in particular Industry towards activities of IUPAP
- Identify mechanisms for involvement of Multinational Corporations, Small and Medium Size Companies and Startups.
- To co-organize/sponsor (in partnership with other commission and WG) suitable international meetings, workshops and prizes which fosters the mandate of WG16.

The group can count on many physicists who work outside the academia, who can help to understand what are the problems and the opportunity for collaborations between the scientific community and the industries. A first point of the group discussion was that companies are geographically based, and in the various regions there are already physical societies and associations. So what IUPAP can offer more or different? That is still not clear. A second point of discussion was the preparation of a report to underline the necessity of a physics and industry collaboration; the group thinks that the preparation of the report is a priority, being the group of limited capacity and still under construction. There was also input from the universities, about what they expect from these interactions. We have also considered the best practices already existing in other associations, such as IUPAC, APS, EPS etc. and the necessity to start studying their models. Basically in one model (e.g. IUPAC) there is a specific Commission through which all others can act, and in the opposite model all members can have direct interactions. The choice of the best model is up to IUPAP. IUPAP needs also to define standards on the benefits that companies receive for the collaboration with IUPAP. Another action that is needed from IUPAP is to promote the interaction of the working group with other working groups and Commissions for common actions.

The President thanks Narayan for the report. The involvement of the industry is a very important task for the Union's future; as mentioned in the first day, companies might finance the Young Scientist awards, and that would be very welcomed in a time of limited financial resources. Companies might also become corporate members of the Union, without voting rights but with the possibility to participate to the commissions' activities and the GA. But all that needs to be better discussed and defined in time for the next GA.

Discussion.

Laura H. Green (Chair C10, Vice-Presidents Elected from the Commission Chairs) suggests to go and see the IUPAC and IUPAP websites, that's sufficient to understand strengths and weaknesses of the two organizations. The model we are looking for is there: IUPAC. In this model not only companies, but also individuals can collaborate. She stresses that jobs in industries are not an alternative profession, but the main profession for physicists, we are IUP A P (stressing the A for Applied), and we have to keep that in mind. Professors are a minority, main stream are physicists who work outside academia (70% in the APS). And she says not only in industries, but in general the private sector, in which physicists work on mathematical modelling, not people with economic or sociological background. So, she suggests, we should move quickly in that direction. She also can recommend names to be involved in the WG.

Burkard Hillebrands (Chair C9) underlines that IUPAP is a global organization, cannot work with single companies, but better with the societies that gather the companies in a particular sector. His Commission for example works already with the Magnetic Society, very naturally and with good results. We could even exchange members with those societies. K.S. Narayan replies that he very much agrees with Laura. In respect to Burkard suggestions, he believes that there are many areas of applied research that does not match with Commissions; if there are appropriate Commissions, they can work as suggested, but for many other topics a specific Commission on Physics and Industries is needed.

John Ozaki (Chair C17) suggests Narayan to talk with **ICUIL**, because they succeeded at involving a lot of companies in their international programs, this is a specific model of cooperation toward common enterprises. Sunil Gupta (Chair C4) observes that Commissions succeed to involve industries in the organizations of conferences, in the case of C4, for example, companies that produce detectors but also publishers collaborate. But these good relationships usually end with the conference; we should instead pose already seeds in the conferences, providing companies roles – e.g. in committees - that strengthen the bonds.

11. Members matters.

Nithaya Chetty (Vice President – At Large for New Members) organises his report in the comparison between the slides of the previous presentation and what was really achieved afterwards. A new portfolio for new members was developed, a template for MoU was also developed, but unfortunately the growth of the membership has been put to a stop by the pandemic situation, which has forbid the personal contacts with scientists and members of governments that are so important. Many good results were reached, though.

Jordan has joined IUPAP in July 2018, also if the MoU still needs to be signed. A MoU with Egypt was signed in March 2019, with Uruguay in April 2019, with Bulgaria in December 2019. The membership of Ethiopia and other new countries is still under discussion. All Commission Chairs have been requested to help leading conversations about expanding the membership. A special collaboration was established with C13, C14 and WG5 with their networks. Despite the pandemic, the comparison of the slides shows a positive trend.

The same appears comparing the numbers of the membership, as follows:

- 59 members in 2020, [57 in 2019]
- Approximately 76% (45 [43 in 2019] members) are considered to be very secure
- 7% (4, [4 in 2019] members) moderately secure
- 17% (10, [9 in 2019] members) precarious in the membership of the Union
- Over the past decade, 16, [14 in 2019] new members entered the Union and subsequently 3 [3] of these members exited the Union.

Obviously the precariousness of members increased because of the economic crises that accompanies the pandemic, but overall the trend is good – 16 new members is acceptable considering the circumstances.

Nithaya underlines important points to be considered for the enlargement of the membership. A strong financial support is needed, to help developing countries.. Scientific diplomacy is crucial, meaning creating and maintaining contact with embassies, as for example he has achieved with the Pakistan embassy in Johannesburg. An apolitical stance is fundamental to achieve impact on societies.

Very important is also to engage new members in the IUPAP life, nominating representative in the Commissions and Working Groups - the countries have invested and need to see a return for the investment. To this end he invites the Council to collaborate engaging new members in committees and tasks. In many conversations with funding agencies and government bodies the question that arises is “what is in for me?” and we need to know how to answer this question. If we insist on the global perspective only, on the role of physics for the global good, which of course is very important, we can lose the interest of local politicians.

IUPAP100 is an important opportunity to recruit new members, not only recalling the past but giving perspectives for the future, for example as physics can help to face climate change. IYBSD is critically important for building physics bridges between the developed and the developing world, where is important to recruit new members. Nithaya then invite participants to consider the new circumstances IUPAP is facing in 2020. To understand the environment is more and more important and a scientific approach to sustainability too, but at

the same time, on the contrary, the society is more and more polarized, politically polarized, in regard to issues, such as energy, covid or climate change. Science has been politicised. To find a neutral ground, as we scientists should always do, is difficult, but we cannot ignore this challenge. A second point is that mainstream society is largely uncritical and easily swayed in opinion, there is a deluge of information, and scientists need to promote a more careful assessment and use of information. A third point is related to ethics, are we considering enough the ethical sides of what we do, and how we do it? And finally the pandemic has exposed deep inequalities in society, and forces us to consider a more humanist approach in science. There are many opportunities for physics, but there is also the need for a multi-disciplinary approach.

All these circumstances, and the current economic crises, make more difficult the recruitment of new members, and it is necessary a common and stronger effort, also in terms of a better and larger communication.

Jun'ichi Yokoyama (AAPPS Representative) represents a society with 18 member societies in 17 different countries and regions, but some of them are not in IUPAP, like Malaysia, Indonesia, Vietnam etc. Yokoyama asks if IUPAP is interested in including these countries, and what are the requirements. The President answers positively and adds that regional societies can help in convincing countries to join IUPAP. The country needs to apply through an adhering body, which can be an academy or a society, and then a liaison committee has to be created, whose Chair will be the Liaison person between the country and the Union. The country will pay a fee, i.e. for one share up to a maximum of 18 shares, and the number of votes is proportional of the number of share (1=1). The President thanks Nithaya for the many suggestions, and underlines that to expand membership means not only include new countries, but to involve more societies, companies, the students unions (as it will be discussed later in the meeting) and perhaps also individuals, as it was suggested. As we need to change Statute and By Laws, possibly we can consider this possibility too.

12. Relations with other unions

The President explains that ICS is the International Science Council, which gathers all Unions and Academies. ISC is the natural hub to launch inter unions projects (this was the case for LAAMP – Light Sources for Africa, the Americas and Middle-East, and Gender gap in physics). However, these projects won't be supported by ISC on a long term, and there are less and less inter Union activities supported by ISC (at least where IUPAP could connect). For this reason we need to find new ways to support IUPAP inter-union projects. Our inter-union projects are:

- IYBSSD
- LAAMP Light sources for Africa, the Americas and Middle-East Project
- SCGES (Standing Committee on Gender Equality in Sciences)
- BIPM Consultative Committee for Units.

One way to support these projects is to create agreements between Unions. We are going soon to listen Mathieu Davis from ICS; he will present ICS strategy and position also on these inter-union projects. There are also bi-lateral projects, first of all with IUPAC with which we have strict interactions. We just signed an agreement with ICO (??) and agreements with IAPS (International Association of Physics Students) and IUHPST (International Union of History of Philosophy, Science and Technology) will follow. With IUHPST we plan to work jointly for the history of Physics and, as a spin off, the history of IUPAP.

13.1 ISC matters

Mathieu Davis (ISC Representative) presents ICS mission and activities. What is more relevant to IUPAP is that ISC collaborates for the development of international projects, such

as the IYBSSD, and also financially supports projects carried on by other organizations, as Michel mentioned. There are approximately 16/17 programs of grants in key scientific areas, such as climate change. Covid-19 obliged ISC to reconsider the 2019-2021 plan, new programs were added and existing programs were revised, especially regarding their schedule. **New projects** include:

- Rethinking Human Development, in partnership with UNDP, to find new indicators to assess human development
- Systemic discrimination in science, in partnership with IAP, TWAS, GYA, WFEO, CIPSH, AAAS and IHRN
- Pathways to a post-COVID world, with IIASA and in partnership with the Ban Ki-Moon Foundation, The Earth League, Future Earth and the Vienna Energy Forum

In the website it is possible to find information about many other current projects. ICS produces also many publications to feed debates or recommend positions. Among others he mentions the working paper “Open science for the 21st Century”, a draft submitted to UNESCO in May 2020 as ISC’s contribution to UNESCO’s global consultation on open science to which IUPAP contributed. The ambition is to arrive to a ICS position paper. Other noteworthy publications are:

- “Accelerated action and transformative pathways: realizing the decade of action and delivery for sustainable development”, S&T Major Group Position Paper submitted to the UN HLPF in May 2020
- “Opening the record of science: Making scholarly publishing work for science in the digital era” Draft Discussion Paper published in June 2020
- “Hazards Definition and Classification Technical Report” co-published with UNDRR in July 2020.

ISC even experimented TV transmissions. The Global Science TV was launched on the 3rd of June 2020, and to date ICS produced 13 episodes covering topics from climate change to the internet of things, black holes, airborne transmission of the coronavirus, vitamin supplements, and poverty. The TV has almost 130.000 views on YouTube and approx. 10.000 Facebook followers. Everybody can subscribe and get involved via the ICS website.

The ISC is a young organization (2 years old) but was born from the merge of older organizations, with a good regional coverage in the world. But now ICS wants to revamp this regional presence, with activities that better reflect these regions and their priorities. The idea is also to create a global Secretariat, based on various hubs in the different regions. A call has been open to receive candidatures, and the Unions could also apply to host a secretariat or act as ISC champions.

Regarding the funds ISC gave to IUPAP projects (300.000 Euros per 3 years to LAAAMP; and a similar support for the Gender Gap project), Davis confirms that this program stopped. The goal was to promote the collaboration among Unions and support them for 3 years, but then partnerships need to find their own sustainability. But ICS is keen to work with the spinoff of these projects to find support from other organizations.

13.3 LAAAMP

Sekazi Mtingwa (LAAAMP Executive Committee Chair) illustrates the project, that is a common project IUPAP and International Union on Crystallography (IUCr) and was extended to 2020 and 2021 to reach the accomplishment of all expected tasks. LAAAMP is the acronym for Lightsources for Africa, the Americas, Asia and Middle East Project. The specific targeted regions were Africa, Mexico, Caribbean, Southeast Asia and Middle East, and we expanded this geographical dimension including the Pacific islands. Also the

Executive Committee was expanded to reach a good diversity in terms of genders and ages. Tasks are:

1. Develop a Strategic Plan for each Targeted Region.
2. Conduct an Advanced Light Source (AdLS)/Crystallography Colloquium Programme.
3. Assist in Establishing Crystallography Training Schools in the Targeted Regions.
4. Publish and Disseminate an AdLS/Crystallography Informational Brochure.
5. Send Faculty-Students (FAST) Teams to Partner AdLSs for 2-Month Visits
6. Operate a Sample Mail-In Program for AdLS Data Acquisition.
7. Present LAAAMP's Accomplishments at a High-Profile Meeting.

Tasks 1 to 4 were achieved. The brochure is in 5 languages, the last in Portuguese, all downloadable from the website.

The FAST Team Programme (point 5) has sent thirty-five (35) FAST Teams for two (2) months of training at LAAAMP's Partner AdLSs. Those partners include the following:

1. Advanced Light Source, Lawrence Berkeley National Lab (Berkeley, CA, USA)
2. Advanced Photon Source, Argonne National Lab (Outside Chicago, IL, USA)
3. ALBA Light Source (Barcelona, Spain)
4. Australian Synchrotron, Australian Nuclear Science & Tech Org. (Outside Melbourne, Australia)
5. Canadian Light Source (Saskatoon, Saskatchewan, Canada)
6. DELTA Light Source (Dortmund, Germany)
7. Elettra Light Source (Trieste, Italy)
8. European Synchrotron Radiation Facility (ESRF) (Grenoble, France)
9. MAX IV Laboratory (Lund, Sweden)
10. National Synchrotron Light Source-II, Brookhaven National Laboratory (Long Island, NY, USA)
11. Photon Factory, Institute of Materials Structure Science, KEK (Tsukuba, Japan)
12. Pohang Accelerator Laboratory (Gyeongbuk, South Korea)
13. SESAME Light Source (Allan, Jordan)
14. Siam Photon Source, Synchrotron Light Research Institute (Nakhon Ratchasima, Isan, Thailand)
15. SLAC National Accelerator Laboratory (Stanford University, Menlo Park, CA, USA)
16. Taiwan Photon Source, National Synchrotron Radiation Research Center (Hsinchu, Taiwan).

As for the financial support, LAAAMP provides 1,818 Euros per person [plus 182 Euros administrative cost paid to Abdus Salam International Centre for Theoretical Physics (ICTP)] to cover transportation and partial accommodation costs. The remainder of accommodation and subsistence must be negotiated with the host AdLS and other sources of support. There are other 14 FAST teams to go, when the pandemic will allow. At the end of 2021 LAAAMP should reach the number of ninety-six (96) FAST Team Individual Awardees. There is a new training scheme in Benin with more than 100 students from all around Africa.

At the moment there is a need to find new funds to continue the activities. Partners, also company partners, are helping now to find funds to support actions in the different regions, and LAAAMP hopes also in the help and financial support of IUPAP.

13.4 Gender Gap in Science Project

Silvina Ponce Dawson (IUPAP Active President-Designate) illustrates the project "A Global Approach to Gender Gap in Mathematic and Natural Science: How to measure it? How to reduce it?". The project was led by the International Mathematical Union and IUAPC; IUPAP was a key partner and many other Unions participated. Also funded by ICS, the project ended in 2019. It pursued three tasks:

1. A global survey among scientists, which received 34.000 answers (2018)

2. A study of patterns of publication aggregated by gender
3. A database of good practice policies.

The results were presented in London in 2019, a main conference at the ICTP in Trieste (Italy) was organized in November 2019 and the final report published. The conference was very alive. The colloquium was given by Petra Rudolf, the current President of the European Physical Society. There were breakout sessions by disciplines, in which participants could discuss peculiarities of the different research fields. For IUPAP Bruce McKellar and Gillian Butcher were attending, and Gillian is now IUPAP Gender Champion. The session on physics was attended by 18 participants. Gillian and Silvina presented the IUPAP policies to reduce the gender gap. Among the issues discussed: many organizations organize career development courses and often there are not enough trainers for them; we need to train more trainers for the needs of these courses. It is also very important that scientists know how to speak with policy makers. At EPS there are workshops to empower scientists for that, we need to offer the same.

After the conference the final report of the project was produced and it is now available online. It is also downloadable and sent by mail in a printed version if required. A short version is available in several languages. The analysis aggregated by gender has been published in *Quantitative Science Studies*; the data show that there was an improvement in astronomy, where large projects involve a consistent number of women. Not the same happens for other field such as high energy physics, for example.

The project does not end with the end of the ICS funding. We had a coordination meeting in July 2020 and will have another one in October. IUPAP and other Unions committed to support financially the continuation of the work.

Future plans are:

- Anonymization of survey responses to share them with people interested in their analysis (AIP will pay for working hours on this).
- Maintenance of good practice database@IMU. We would like to maintain it and having it in different languages in order to match the regional diversity
- Further analyses of publication patterns (post-doc's project @Berlin).

An heritage of the project is the Standing Committee for Gender Equality in Science, which will be presented by Gillian,

A MoU has been signed by International Mathematical Union (IMU); International Union of Pure and Applied Chemistry (IUPAC); International Union of Pure and Applied Physics (IUPAP); International Astronomical Union (IAU); International Union of Biological Sciences (IUBS); International Council for Industrial and Applied Mathematics (ICIAM); International Union of History and Philosophy of Science and Technology (IUHPST); Gender in Science, Innovation, Technology and Engineering (GenderInSITE).

Aim of the MoU is:

“To promote gender equality in science, a number of international organizations who took part in the Gender Gap in Science project wish to act together to further promote gender equality in science by continuing and enlarging the work accomplished by this project, by supporting women and girls’ equal access to science education and fostering equal opportunity and treatment for females in their careers”.

Mathieu Denis adds that ISC invited the Gender Gap project to a meeting for November 2020, in which ISC promotes the involvement of other international organizations beside Unions. We also would like to set up a repository of good practices and policies, similar to what the GG project has but expanded to other organizations. Luc Berger asks Silvina if the GG project compared its data with the data collected by the EPS; he was Chair of the EPS gender commission and knows that data were collected of women presence in Physics.

Silvina answers that no, they wanted to collect their own data (but in the report some comparison was made). The GG project is not a social science project, although social scientists participated, but more and engaging project inside the community of women in science. There are a bottom approach and a top down approach for the development of policies, of course these two directions have to meet, but what we are trying to do is to promote a bottom up approach. We are giving our own perception on what is going on with our lives, she says, and this perception has to be taken into account.

14.1 Conference matters.

Rudzani Nemetudi (Associate Secretary General) relates on supported conferences. The first part of the presentation regards procedures, and the large majority of participants would know already what they are, therefore he gives only a few hints on it. He would like to remind everybody that at the foundation of IUPAP main priority of the funders was to secure access to appropriate conferences and possibly free access to all, and this remains one of the most important actions of the Union. IUPAP rules and criteria for an appropriate conference are available online, and are related to 4 types of conference: Type A (General), Type B (Topical), Type C (Special) and Type D (Workshops). An important observation: because of the Covid-19 pandemics, the majority of conferences approved for 2020 are going to be held in 2021, with the same financial support.

The following table shows the proposed conferences and our indications, up to 2021, but Rudzani asks Chairs to send their comments and updating if necessary:

Legenda: in black newly submitted for 2021; in brown postponed from 2020 to 2021; in red newly submitted as Type C; in green endorsement; in violet beyond 2021.

Cmsn		Title of 2021 IUPAP Conference Applications	Acronym
C2	B	International Conference on Precision Physics and Fundamental Phys	FFK - 2021
C2	B	International Conference on Precision Physics of Simple Atomic Syste	PSAS - 2020/1
C3	B	The 6 th International Soft Matter Conference	ISMC - 2021
C4	A	37 th International Cosmic Ray Conference	ICRC - 2021
C4	B	17 th International Conference on Topics in Astroparticle and Undergr	TAUP - 2021
C4	B	21 st International Conference on Very High Cosmic Ray Interactions	ISVHECRI - 2020/21
C4	B	9 th International Conference on Very Large Volume neutrino-Telescop	VIVnT-2020/21
C4	C	16 th Patras Workshop on Axions, WIMPS and WISPs (No Comm)	WIMPS + WISPS 21
C5	B	International Symposium on Quantum Fluids and Solids	QFS - 2021
C8	B	International Conference on Defects in Semiconductors	ICDS - 2021
C9	A	International Conference on Magnetism	ICM - 2021
C9	B	24 th International Colloquium on Magnetic Films and Surfaces	ICFMS - 2021
C9	B	International Conference on Trends in Magnetism	ICTM - 2020/21
C10	B	12 th International Conference on Magnetic and Superconducting Mat	ICMSM - 2021
C10	B	28 th AIRAPT and 59 th EHPRG International Conference on High Pressu	AIRAPT + EHPRG
C10	B	Nanowire Week 2021	Nanowire Week
C11	A*	30 th International Symposium on Lepton Photon Interactions at High	ISLPIHE - 2021
C11	B	International Conference on Computing in High Energy and Nuclear P	ICCHNP - 2021
C11	B	Internationa Conference on Large Hadron Collider Physics	LHCP - 2020/21
C11	C	28 th International Workshop on Weak Interactions and Neutrinos	IWWIN - 2021
C12	B	14 th International Conference on Nucleus-Nucleus Collisions	NNC - 2021
C12	B	Advances in Radioactive Isotope Science	ARIS - 2020/21

(continues)

Cmsn		Title of 2021 IUPAP Conference Applications	Acronym
C13	D	International Conference of the African Physical Society (ICAfPS)	IC-AfPS-2021
C13	D	Conference on Mathematics of Condensed Matter and Beyond (Beirut)	MCMB-2021
C13	D	6 th Biennial African School of Fundamental Physics and Applications,	ASP 2020/21
C13	D	6 th African School on Electronic Structure Methods and Applications (ASESMA)	ASESMA 2020/21
C13	D	Third African Synchrotron Light Source Conference (AfLS3)	AfLS3 2020/21
C14	B	3 rd World Conference on Physics Education 2020: Innovating physics education	WCPE 2020/21
C15	A	32 nd International Conference on Photonic, Electronic and Atomic Collisions	ICPEAC -2021/23
C16	A	International Conference on Phenomena in Ionized Gases	ICPIG - 2021
C16	A	International Conference on Plasma Physics	ICPP 2020/21
C18	B	16 th International Conference on Integral Methods in Science and Engineering	IMSE 2020/21
C19	A	31 st Texas Symposium on Relativistic Astrophysics	Texas-Sym-2021
C20	B	32 nd Conference on Computational Physics	CCP-2021
AC1	A	25 th Congress of the International Commission for Optics (ICO)	25 th ICO 2020/21
AC2	B	14 th Edoardo Amaldi Conference on Gravitational Waves	AMALDI - 2021
AC3	A	International Conference on Acoustics	ACOUSTICS-2021
AC4	A	World Congress on Medical Physics and Biomedical Engineering	WCMP - 2021
AC4	B	18 th Asian Oceanian Congress of Radiobiology	AOCR - 2020/21
2021 CONFERENCE ENDORSEMENT			
C4	C	16 th Patras Workshop on Axions, WIMPS and WISPs (No Comm)	WIMPS + WISPs
C9	C	2021 IEEE International Conference on Nanomaterials: Aps&Prop	IEEE-ICN
C10	B	Nanowire Week 2021	Nanowire Week
C11	C	28 th International Workshop on Weak Interactions and Neutrinos	IWWIN - 2021

Some of these conferences will be postponed to 2022 and not 2021, Rudzani asks Chairs to communicate this further postponement if that is the case. In some case they will be in remote, other in presence. The C4 16th Patras Workshop has been endorsed but not funded, because too specialistic and because it is a workshop, which we never financed. But the support might help organisers to find sponsors.

Overall IUPAP has 23 new proposed conferences, plus the ones that were postponed, but for a precise number and the new dates we wait for Chairs' updating (in this preliminary calculation the total new+postponed is 37). The allocated budget won't be affected by the comments and updating by the Chairs, because the new conferences are funded as well as the others, independently if they will be held in 2021 or 2022.

14.2 Report from the Gender Champion

Gillian Butcher (Acting Vice President at Large, Gender Champion) starts her presentation from where Silvina ended. As Silvina said, a MoU among Unions is now the framework in which the Committee on Gender Equality in Science continues its work. 9 organizations signed, and guarantees 300 Euros each per year. Gillian is the IUPAP Representative, and Rudzani is the Deputy Representative. The MoU aims at helping the partners to promote gender equality within their organisations, and in particular:

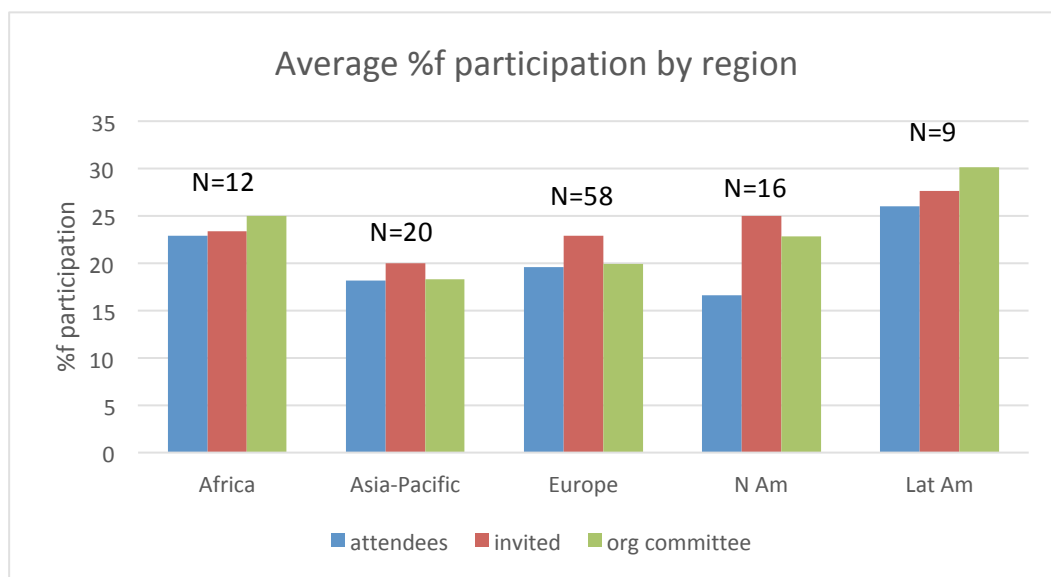
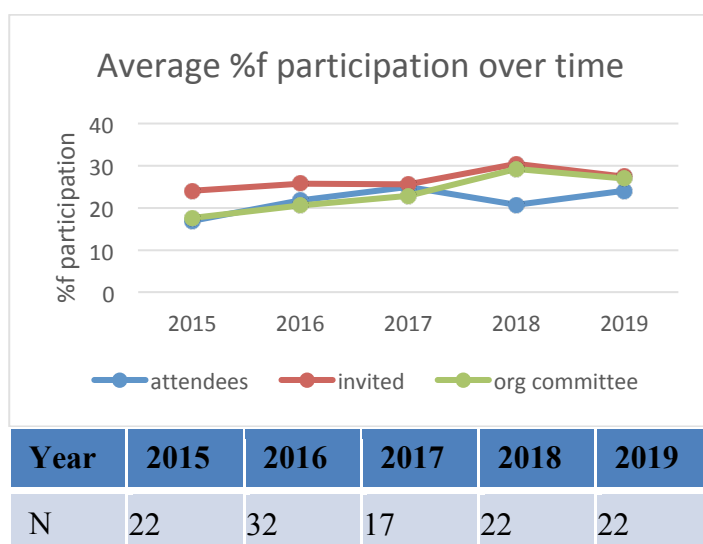
- It follows the progress of the implementation by partners of the recommendations of the Gender Gap in Science Project;
- It endorses projects and initiatives to promote gender equality in science proposed to it by partners;
- It facilitates communication among partners, among other things by developing and maintaining a website.

A first meeting took place online the 12th September 2020; Chair and Vice Chair were elected in the persons of Catherine Jami (IUHPST) and Guy Smagghe (IUBS); Communication Officer was designated Marie-Françoise Roy (IMU). It was agreed that IUPAP manages the Committee funds. A logo has been chosen, and the website is under construction.

Then Gillian reports on the presence of women in IUPAP conferences. IUPAP is asking all conference organizers to give data on the presence and role of women, so that it is possible to draw a picture of the state of the art. In particular conference organisers return information on:

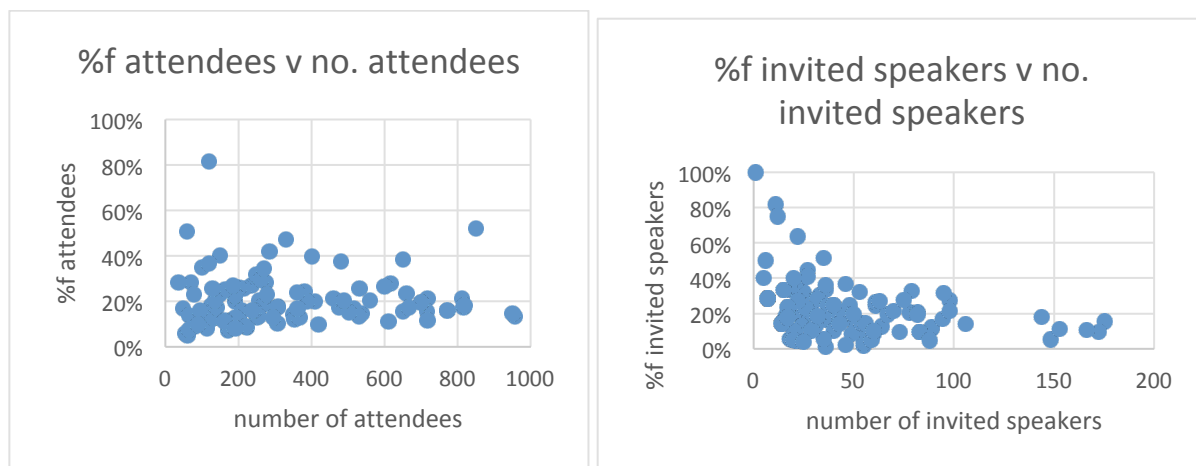
- Number of attendees, female attendees
- Number of invited speakers, female invited speakers
- Number on organising committee, females on organization committees.

We have data on 115 conferences during a period of 5 years. In the following tables the results.

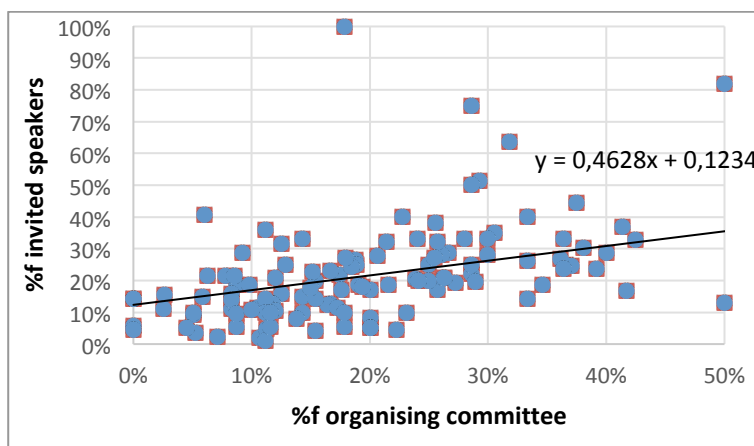


A positive trend in the five year of observation can be seen.

An interesting questions would be if there is a difference between large and small conferences, and that was investigated as in the following tables. The answer is no.



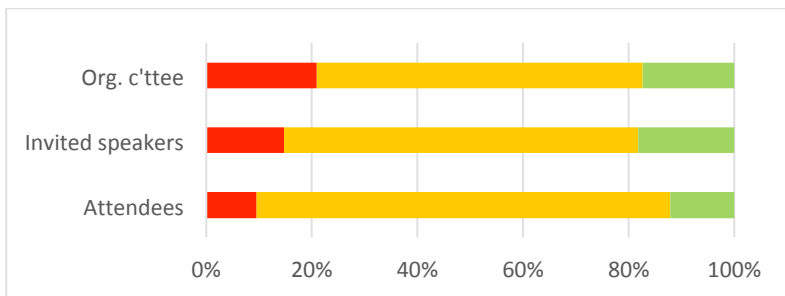
We have also investigated if the presence of women in committees results in more women as invited speakers. The answer is that a small trend is visible, as in the following table, but it is not a guarantee.



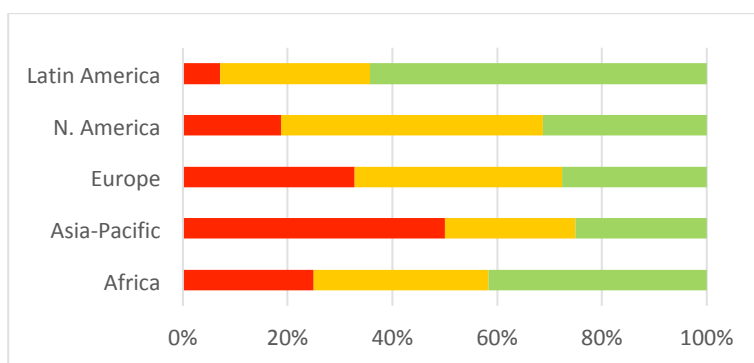
Similarly there are slightly more women participants if there are more women invited speakers, but of course the presence of women is also related to women involvement in the different research fields.

If we then assign a category (poor, middling and good) to the presence of women in the conferences, although the categorization is very rough and subjective the results are interesting; they show that in all region and nearly all Commissions there is still much work to do to reach a gender balance.

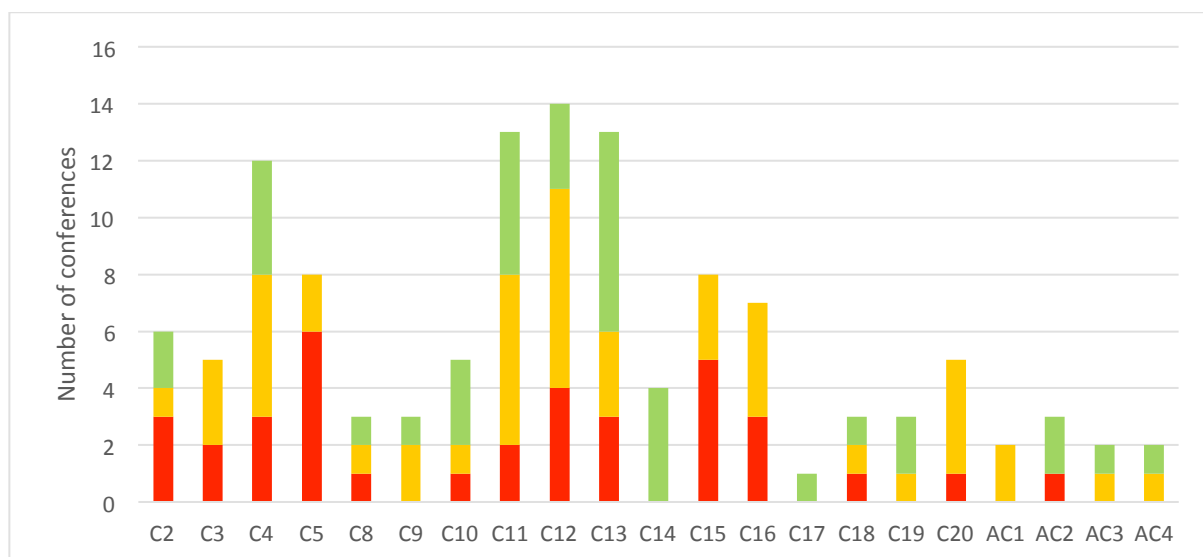
	"Poor"	<10%	
	"Middling"	10% - 30%	
	"Good"	>30%	
	"Poor"	Middling	"Good"
Attendees	11	90	14
Invited speakers	17	77	21
Org. c'ttee	24	71	20



	"Poor"	Middling	"Good"
Africa	3	4	5
Asia-Pacific	10	5	5
Europe	19	23	16
N. America	3	8	5
Latin America	1	4	9



There are significant differences if we consider the different Commissions, i.e. research fields. Education, as in all fields and in the society at large, is a female occupation.



Summarizing:

- There is a progress in percentage of female participation, particularly in organising committee and invited speakers
- Is a question: is the percentage of female attendees – a proxy for percentage in that field?
- More nuanced benchmarking data would be useful
- We need to continue to encourage inclusivity.

The President comments that this positive trend is encouraging, and also if it is not in the hands of IUPAP to change the situation the UNION can continue a work that anyhow has an impact on societies. Silvina adds that it might be interesting to see if statistics changes with the virtual conferences. Monica asks if all conferences sent their data, and Rudzani answers that no, we received 22 reports for 29 conferences held in 2019. A discussion follows on the opportunity and means to ask for a stronger presence of women in the committee and conferences, considering also the diversity in the fields but also of regions. Silvina points out that what is required is quite a modest rate, 10% minimum of presence and 20% as target, and if organisers do not meet these percentages they can explain why, so we do not prevent conferences to happen.

The President thanks all participants for the dense and participated meeting and closes the second day.

End of Day 2