
International Union of Pure and Applied Physics Meeting of Executive Council and Commission Chairs, Institute of Physics, London, UK

31 October – 1 November 2011

Present:

Sukekatsu Ushioda (President), Cecilia Jarlskog (President Elect), Alan Astbury (Past President) Robert Kirby-Harris (Secretary General), Rudzani Nemutudi (Associate Secretary General).
Vice-Presidents at large: Alexander Kaminskii, Marcia Barbosa, Mustanair Barma;
Vice-Presidents/Commission Chairs: Henri Orland, Sadamichi Maekawa, Klaus von Klitzing, Samuel Bader, Patricia McBride;
Commission Chairs: Peter Mohr, Suresh Tonwar, Robert Hallock, Jose N Onuchic, Dan-Olof Riska, Kennedy Reed, Pratibha Jolly, Burkhard Fricke, Padma Kant Shukla, Alan Shore, Maria Victoria Fonseca, James Gurbenatis, Malcolm MacCallum, Hebert Spohn, Duncan Moore, Yiu W Lam (representing AC3), Slabic Tabokov (representing AC4), Williamina Lazaro (Administrator), Natasha Plaister (in attendance)

Apologies

Sadamichi Maekawa (C9) and Abhay Ashtekar AC2.

1. Welcome and introductions

President Sukekatsu Ushioda welcomed everyone to the meeting. All commission and council members were requested to introduce themselves.

2. Minutes of the Meeting held on 5 & 6 November 2010, New Delhi, India

- 2.1 The minutes of the C&CC meeting held in New Delhi, India, USA on 5 & 6 November were approved with the following corrections: Section 5.1.6: C14 aims to give the YSO award the next conference in the second part of the semester. ‘be’ replaced by ‘new’. Section 19.8.6: Samuel Bader will be replaced by Patricia McBride. Section 19.11.3: the word participants to be replaced by applicants. Section 19.22.6: the word ‘continue’ to be replaced by the word ‘new’.

3. Report from President Sukekatsu Ushioda

- 3.1 Katsu reported that he was very pleased to have almost concluded his term in office and he was confident that he was ‘passing the baton to capable hands’ when his successor takes over from the end of the General Assembly. He spoke of his experience during the recent earthquake and tsunami in Japan and thanked everyone for their support. He commented that the damage at Tokyo University was extensive. His institute had incurred considerable damage to research equipment including High Resolution TEM and SEM, but the situation has now improved and normal operation has been resumed.

4. Report from Secretary General: Robert-Kirby Harris

4.1 Finance

- 4.1.1 The 2010 financial statement was presented alongside the performance against the 2011 budget together with the proposed 2012 budget forecast. Details of the finances to be covered under a separate agenda item on Financial Statement for the period 22 February – 31 December 2010.

4.2 Administration

- 4.2.1 The IUPAP is now established within UK for administrative purposes as a not-for-profit (charitable) entity, giving it UK legal identity and enabling it to avoid paying tax on its investment income. Issues concerning the Women in Physics account have been resolved with former (continuing from the APS period of administration) chief of secretariat continuing as the administrator and the Honorary Treasurer of the

American Physical Society providing counter signature. The process of transferring commission websites has been concluded for more than commissions.

4.2.2 Membership

- 4.2.2.1 Iran has joined IUPAP with the Iranian Physical Society acting as the liaison committee. Cuba has rejoined at the level of Category C. In light of its financial position, special arrangement has been agreed with Latvia to enable it to continue as a member for the next few years. Such agreement will be reviewed annually and will not extend beyond 2014. Senegal has back-paid its dues for the previous number of years; the outgoing C13 Chair worked particularly hard to facilitate this.

4.2.3 General Assembly

- 4.2.3.1 The preparation for the General Assembly has been a considerable task on top of the heavy administrative load to run the IUPAP operation. IOP has had to mobilize and bring on board extra staff to assist with GA logistics, including arrangements for accommodation, transport, scientific programme, external visits, dinners, etc.

4.2.4 IUPAP Commission Membership

- 4.2.4.1 Developing a representative slate for the membership of 18 IUPAP Commissions has been a considerably challenging task as one tries to satisfy the conflicting expectations of member states and commission chairs. Wherever possible proposals from Commission Chairs were taken into account as the principal influence when developing the slate.

4.2.5 Nominations

- 4.2.5.1 Professor Mark Lester has been nominated as IUPAP representative to SCOSTEP

4.2.6 IUPAC

- 4.2.6.1 Constructive discussions were held with the secretary general and president of the IUPAC during the recent ICSU GA in Rome. Revisions are being finalized to redefine the membership of the joint IUPAP/IUPAC working group for the discovery of new elements.

4.2.7 ICSU

- 4.2.7.1 The Secretary General attended the 30th General Assembly of ICSU in Rome on 27 – 30 September 2011. At the ICSU GA, the chair of C13, Kennedy Reed, was elected a member of the executive board of ICSU. It would seem appropriate for the next IUPAP Council to elect Kennedy Reed a representative of IUPAP on ICSU. Amongst other important issues considered at the ICSU GA was the final statement on the universality of science. The revised statement extends the former version by emphasizing the principles of freedom and responsibility in the conduct of science rather than placing emphasis on freedom of science.

4.2.8 International Year of Light

- 4.2.8.1 The proposal for the International Year of Light will be presented at the 27th IUPAP General Assembly by John Dudley, the chair of the Optics Division of the European Physical Society (EPS) who is spearheading the 2015 IYL project.

5. Preparation of Commission Slate

- 5.1 Williamina Lazaro distributed the proposed commission membership slate which was compiled after consultation with commissions and national liaison committees. A total of 14 members are allocated per commission. The president explained that while all comments and proposals from commissions and national liaison offices were taken into account, it was difficult to meet all expectations, with at times instances where countries expectations were radically different from those of commissions. The category of associate membership remains available to complement representation by providing a link between commissions.

- 5.2 All commission chairs were given a chance, at the meeting, to make final input before the final slate was compiled. With the exception of C9 which was not represented on the first day of the meeting, all commission chairs indicated their satisfaction with the slate following some revisions.

6. Nomination of Officers and Executive Council Structure

- 6.1 Meeting endorsed the proposal to increase from 3 to 5 the number of Vice Presidents at Large, and further granted approval to the proposed executive council structure which should be tabled for approval by the General Assembly.

7. Financial Matters

7.1 Financial Statements Year-end 2010

- 7.1.1 The 2010 financial audit had been carried out which showed that for the period under review, the expenditure was much in line with the budget. The UK financial report has to be presented in pounds sterling for audit purposes.
- 7.1.2 The presented balance sheet indicates that virtually all funds have been transferred to the UK. A total of £ 721, 458 has been transferred from the US. The figure will also have to be reflected in Euros.
- 7.1.3 It was noted that the financial statements have thus far been presented following a so-called cash accounting system, but in future the accrual accounting system will be used.

7.2 Proposed Budget 2012

- 7.2.1 Income forecast of €415 000 reflects an anticipated deficit of €37 400. The overall Conference budget and travel grant remains as in 2011. The budget for commissions is increased by €7 000 to €30 000. ICSU subscription dues increased to €19 400. The increase to €70 000 for Council and Commission Chairs meetings is a result of two C&CC meeting having to be held within one financial year as is always the case in the year following the General Assembly. The income from membership dues expected to increase assuming that the inflationary increase is implemented and that the dues are paid up in the same manner as now.
- 7.2.2 Despite the inflationary increase, the deficit is rising due to a number of factors, including a marked rise in ICSU dues from €13 000 to €19 400. In the end, a durable strategy could well be to ask countries to consider increasing their number of shares
- 7.2.3 Sam Bader suggested that the IUPAP should strive to double the membership as this will increase the revenue as well as broaden the IUPAP footprint. Cecilia Jarlskog suggested creating a working group or task force to drive country membership recruitment.

8. Update on Membership Dues and Shares

- 8.1.1 Brazil has increased its shares from 4 to 8. China Beijing and China Taipei have also increased their shares. By a special arrangement, Latvia continues as a member for the next few years, which arrangement is subject to annual review annually. Senegal has back-paid its dues for the previous number of years.
- 8.1.2 A proposal is to be tabled at the General Assembly to increase the membership dues by 5% for two consecutive years, and thereafter to introduce a regular annual inflationary increase using the IMF model of global inflation rate.

9. Review of Resolutions and other matters for consideration by the General Assembly

9.1 Increase in the number of VPs at Large from three to five

- 9.1.1 Currently three Vice Presidents at Large are elected as stated on page 10 of the 2009 IUPAP booklet. A proposal will be tabled at the General Assembly to increase the number of VPs at Large from three to five.

9.1.2 Jose Onuchic mentioned that it should be properly stated to the GA that the reason behind the proposal is to ensure that there is continuity within the council as well as geographical representation. Marcia indicated that one other reason to increase the number of VPs at Large is to ensure that countries that never had commission chairs are also afforded a chance to have representation on Council.

9.2 Review of terms of office for Officers of Commissions

9.2.1 Under the current terms for commission officers, item 4 reads "Continuous service in all capacities shall not exceed three terms". In the new proposal, the word "continuous" is dropped, and item 4 reads ..."Service in all capacities shall not exceed three terms". Under the current terms, item 5 reads "The council may grant exceptions for those commissions that undertake long-term projects or where continuity is particularly important. In the new proposal, the decision making authority is conferred (from Council) to the General Assembly; so that item 5. Reads "The General Assembly may grant exceptions ... where continuity is particularly important"

9.3 Proposal for C17 name change

9.3.1 The chair of C17, Alan Shore, stated that the proposal to have C17 modernise its image by undergoing a name change is consistent with the proposal by the German Physical Society. Meeting noted that the ICO was in disagreement with the proposed name change for C17.

9.4 Women in Physics

9.4.1 In reference to the resolution submitted by 4th IUPAP International Conference on Women in Physics, the chair of C14, Prathiba Jolly expressed concern that her commission (C14) was not part of the Women in Physics conference but it (the commission) appears explicitly on the resolution. Marcia felt that such lack of proper communication with commissions could be dealt with by restoring the position of liaison officer in Women in Physics Working group; which position proved efficient in the past to ensure proper flow and spread of information.

9.4.2 The proposals from Women in Physics group endorsed with the provision that interaction with WiPG should be extended to all commissions and not just restricted to C14.

9.4.3 Marcia Barbosa was later elected the gender champion from amongst the vice presidents.

9.5 Formal Acceptance of Names and Symbols

9.5.1 The C&CC meeting accepted the recommendation by the Joint IUPAC – IUPAP Working Party on the Discovery of Elements of atomic number greater than 111. The report of the Joint Working Party recommended that claims for elements 113, 115 and 118 were deemed to be insufficiently certain. The three elements whose synthesis has been confirmed are element 110 named darmstadtium, symbol Ds, element 111 named roentgenium, symbol Rg and element 112, named copernicium, symbol Cn. A proposal will be tabled for formal acceptance by the IUPAP General Assembly.

9.6 Endorsement of ICSU Statement on Research Integrity

9.6.1 Alexandr Kaminskii gave an update on the ICSU Statement on Research Integrity. He cited instances of unacceptable practices such as submitting same data for publication in different journals, in essence collecting articles as opposed to collecting data. As part of their responsibility, researchers should report to the appropriate authorities any suspected research misconduct, including fabrication, falsification and plagiarism. The president indicated that the meeting was only expected to take note of the ICSU Statement on Research Integrity.

9.7 Revised ICSU Statement of Universality of Science; Freedom and Responsibility in the Conduct of Science

9.7.1 Meeting took note of the ICSU Statement on Freedom and Responsibility in the Conduct of Science, and accordingly the IUPAP's own statement was amended to be consistent with that of ICSU in highlighting aspects of sex, gender, gender identity and disability. The meeting particularly noted that the revised statement extends the former version by emphasizing the principles of freedom and responsibility in the conduct of science rather than placing emphasis only on freedom of science.

10. Agenda items from Liaison Committees

10.1 Review of structures of commissions

- 10.1.1 Numerous suggestions are contained in the German Physical society proposals, some of which propose changing names of existing commissions and/or coming up with new ones. It was felt that forming new commission in particular is a more serious business, and we should ensure that proper procedures are followed, including researching the archives for precedents.
- 10.1.2 It was understood that the ICO was in disagreement with suggestions to change the name of C17. The chair of C4 was particularly concerned that there was tabled at the C&CC meeting a proposal that sought to have its name changed when it (C4) has not even been consulted; and he emphasized that the principled position of the commission on Cosmic Rays was that the opinions of the relevant community of scientists should be canvassed before anything is implemented.
- 10.1.3 The situation for AC4 and C6 was the most harmonious since linkage between the two was already taken care of through associate membership of the chair of AC4. AC2 has the prerogative to take its decision on the proposal and Malcolm will take this back to his constituency to gauge opinions. It was proposed that the whole proposal should of course be considered by the GA with specific guidance being provided by council – essentially that small ad-hoc working groups should look into each suggestion in liaison with commissions, affiliated commissions and other relevant bodies. The February 2012 Council meeting should establish these working groups with the expectation that the November 2012 Council meeting could consider specific proposals for implementation.

10.2 International year of Crystallography

- 10.2.1 Meeting agreed that celebrating the centennial publication of the ground-breaking 1913 experiments by W.L. Bragg and W.H. Laue that led to the birth of modern crystallography is a befitting initiative as it stimulates scientific activity. The proposal to declare 2012 the International Year of Crystallography (IYCr2013) was accordingly endorsed.

10.3 Inclusion of sexual orientation and gender identity

- 10.3.1 The IUPAP Statement on the Universality of Science will be updated to include sexual orientation, gender identity and disability in line with what appears on the ICSU's policy on the Universality of Science.

10.4 Gender Champion for IUPAP Commission

- 10.4.1 The proposal to appoint the IUPAP gender champion was endorsed. Marcia Barbosa was proposed and seconded as the suitable candidate for the position of IUPAP gender champion.

10.5 Links with the International Association of Physics Students (IAPS)

- 10.5.1 The proposal to promote cooperation between IUPAP and the IAPS enjoys support of the IUPAP. Bob Kirby-Harris suggested that it was important for the IUPAP to do more than just endorse the proposal of the IAPS, but rather to become proactive in promoting cooperation with other relevant bodies. To that end the IUPAP could start by encouraging its national member states and their liaison offices to lend their support to initiatives of the type proposed by the IAPS. It was suggested that David Lee SG of EPS, could be contacted for more information on the IAPS proposal.

End of Day 1:

Meeting resumed the following day, Tuesday 01 November 2011, joined by Dr Des McMorrow, the secretary and representative of Commission 9.

11. Review of business discussed on day one

- 11.1 There were no outstanding issues from day one, with the exception of the proposed slate from council and the conclusion of the updated commission membership slate.

12. Reports from Commissions including reports on Young Scientist Prize

- 12.1 Oral reports were received from the chairs and representatives of the following commissions and associated commissions: C2, C3, C4, C5, C6, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, AC1, AC2 and AC4. Affiliated commission AC3 was not represented. Refer to Appendix A for details of the Commission Reports.
- 12.2 The C13 report included an update on the status of the Visiting Scientist Programme. All paperwork and documentation for the Visiting Scientist Programme are in place, and the programme is advertised on IUPAP website.

13. Conferences

13.1 2010 Conference Reports

- 13.1.1 The 2010 Conference reports were noted. Rudzani Nemutudi highlighted that only from the reports received could a percentage be derived to reflect the percentage participation of women at IUPAP funded conferences and events. Conference report form will be updated to allow reporting of the total number of invited speakers.

13.2 Approval of Conferences

- 13.2.1 Rudzani Nemutudi presented a list of 2012 conference applications: A total of 30 Conferences were approved for IUPAP funding or endorsement in 2012. In their designated categories, 10 A, 8 B, 9 C and 3 D conferences were approved.
- 13.2.2 Each A conference will be allocated the sum of €9 000 as basic conference grant together with an extra €6 000 travelling grant to assist conference delegates travelling from under-developed and developing countries. Each B conference will receive the sum of €5 000 basic conference grant. All C conferences were endorsed without financial support. All D conferences were each allocated a conference grant the of €7 000.

14. IUPAP Working Groups

- 14.1 **Reports from Working Groups:** Reports were received from PANAGIC, Women in Physics, ICUIL, ICFA and ICNP Working Groups.
- 14.2 **The Proposal relating to the Working Group in Astrophysics and Gravitation:** A committee convened by Malcolm MacCallum presented its recommendations: (a). that the present Working Group 4, PANAGIC, be disbanded in 2011. (b) That a new working group be formed with the name Astroparticle Physics International Committee (APPIC), and (c). That the existing independent Gravitational Waves International Committee become an IUPAP Working Group, bringing over its existing structure and membership. The specific proposals were supported and Malcolm MacCallum asked that recommendations of specific individuals who could do a good job as members of the proposed new working group be forwarded to him or the SG.
- 14.3 **Re-establishment of Working Group on Energy:** This proposal was supported as revitalizing the working group on energy could pave the way for IUPAP to join forces with ICSU in tackling broad issues concerning energy, climate change and similar initiatives. Sam Bader was mandated to collate names of individuals who should constitute the revitalized Working Group on Energy.
- 14.4 **Working Group appointment terms and processes:** All working groups should operate in accordance with the defined IUPAP membership terms and guidelines, with clearly stated *provisos* for specific working groups or circumstances. In addition, working groups are to report on membership matters in annual reports to council who should formally approve working group membership. Marcia Barbosa stated the importance to clearly outline the rules of terms of office on working groups in order to avoid misunderstanding.

15. Reports from Inter-Union Representatives, Joint Working Group on new elements, and the United Nations Conference on Sustainable Development

- 15.1 **BIPM:** The BIPM appoints one member to C2. Meeting particularly noted the BIPM report on the possible future revision of the SI units, with possible changes on the definitions of the kilogram, kg, the ampere, A, the kelvin, K and the mole, which are to be referenced, respectively, to the Planck constant, h, the Boltzmann constant k, the elementary charge, e, and the Avogadro constant N_A.
- 15.2 **COSPAR:** Most scientists affiliated to COSPAR have a background in either Physics or Applied Physics; and COSPAR itself is expected to continue playing a useful role in defining the direction of space research in the future.
- 15.2.1 **ICSU:** The ICSU report highlighted the establishment of ICSU Regional Offices in Africa, Latin America and the Caribbean, and Asia and the Pacific. The meeting noted with particular interest the fact that Kennedy Reed has been elected to the board of ICSU under the category of ordinary member for the period 2011 – 2014, and agreed that Kennedy should now ‘represent’ IUPAP on ICSU. The ICSU Committee on Scientific Planning and Review had requested nominations for committee membership with 16 December 2012 as the deadline; and the meeting explored possible names to strengthen the physical science structure of the key committee.
- 15.3 **Joint Working Group on New Elements:** The new structure for this joint working group was being finalised to ensure it had a better balance between physics and chemistry. The proposal of the Joint Working Group on the acceptance of three new elements was endorsed for approval by the General Assembly.
- 15.4 **United Nations Conference on Sustainable Development (Rio+20):** The Brazil national liaison committee did not participate in the regional workshop as the regional office of ICSU did not consult or communicate with them in time. They (national liaison committee) will however participate in the actual (Rio+20) conference in June 2012. The meeting highlighted the importance of getting involved at preparatory stages of the (Rio+20) conference in order to ensure that the voice of Physics is heard.

16. International Year of Light (IYL) – submission for IUPAP

- 16.1 The mission behind the IYL initiative is to “....highlight to the citizens of the world the importance of light and optical technologies in their lives, for their futures, and for the development of society”. This proposal is similar to what was had some six years ago when the year 2005 was declared the International Year of Physics. Together with his working team, Dr John Dudley, the representative of the European Physical Society (EPS), is scheduled to give a presentation at the 27th IUPAP General Assembly.
- 16.2 Meeting agreed in principle that the proposal needed to be endorsed.
- 17. **Dates and venue for the next C&CC Meeting:** The next C&CC meeting should be held either mid or end of February 2012. Realistic dates will be proposed after the General Assembly. Such dates are only relevant for members who will continue to serve after the GA.
- 18. **Vote of thanks and announcements:** Katsu Ushioda thanked all commission chairs for their three year-long services. Bob Kirby-Harris and his staff at the IOP were commended for their sterling work in handling the US-UK transition and for their continued administrative support to IUPAP. Rudzani Nemutudi was thanked for his handling of conference applications and for recording all the proceedings. Williamina Lazaro was thanked for handling virtually all administrative matters of the IUPAP. Katsu Ushioda also announced that the 27th General Assembly would start the following day, Wednesday 02 November 2011 at 09:00 and that all Commission Chairs are expected to take part in the proceedings and deliberations of the General Assembly.

Meeting adjourned