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## Minutes of the Meeting of the IUPAP Executive Council & Commission Chairs, Cape Town, South Africa, 23 & 24 February 2012

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**Present:**

Cecilia Jarlskog (President), Sukekatsu Ushioda (Past President), Bruce McKellar (President Designate) Stuart Palmer (Secretary General), Rudzani Nemetudi (Associate Secretary General), Williamina Lazaro (Administrator).

*Vice-Presidents at large:* Alexandr Kaminskii, Marcia Barbosa, Mustanair Barma, Wenlong Zhan, Francis Allotey

*Vice-Presidents/Commission Chairs:* Yu Lu (representing Stefano Ruffo C3), Kimitoshi Kono (C5), Ingrid Mertig (C9), Katharine Gebbie (C15), Alex Hansen (C20)

*Commission Chairs:* Stephen Lea (C2), Johannes Knapp (C4), Kenichi Yoshikawa (C6), Robin Nicholas (C8), Yasuhiko Fujii (C10), Hiroaki Aihara (C11), Hideyuki Sakai (C12), Paulo Murilo de Castro Oliveira (C13), Robert Lambourne (C14), Robert Bingham (C16), Victor Zadkov (C17), Jakob Yngvason (C18), Grazina Tautvaisiene (Secretary C19),

*Affiliated Commission Chairs/Representatives:* Marion Burgess (AC3), Fridtjof Nüsslin (AC4)

*Observer:* Henri Orland (representing France)

*Invited Guest:* Jon Samseth (Representative of IUPAP on SCOPE),

**Apologies:** Duncan Moore (AC1) Malcolm MacCallum (AC2)

*[The IUPAP Council and Commission Chairs meeting of 24 February 2012 was preceded by a scientific programme on 23 February held at iThemba LABS where a total of seven scientific presentations were given by eminent scientists to highlight physics research activities and programs in South Africa. The scientific program was followed by a tour of iThemba LABS Research Facilities].*

**1. President's Welcome and introductions**

IUPAP President Cecilia Jarlskog welcomed all delegates to the meeting, and thanked Rudzani Nemetudi and the Director of the iThemba LABS for hosting the meeting, and for providing the opportunity for participants to learn about the excellent physics being done in South Africa. All Commission Chairs and Council members were requested to introduce themselves. Cecilia stated that one of her dreams during her tenure is to see an increase in IUPAP member states. She encouraged all delegates to ask people at commission meetings how they could assist in bringing in new members. She emphasized the need to forge closer links with ICSU. She concluded her introductory remarks stating that the IUPAP Secretary General, Robert Kirby-Harris, will be retiring from his position as the Chief Executive Officer (CEO) of the Institute of Physics (IOP). It is currently not envisaged that the IUPAP could be relocated elsewhere. Formal discussions will be held with the IOP.

**2. Minutes of the Meeting held on 31 October – 1 November 2011, London, UK**

**2.1** The minutes of the C&CC meeting held in London, UK, on 31 October – 1 November 2011 were noted.

**3. Secretary General's Report**

Robert Kirby-Harris reported that the current C&CC meeting is in essence an introductory meeting as it takes place not long after the November 2011 General Assembly in London. The October/November 2012 meeting will deal in detail with normal matters such as budgets, conference sponsorship/approval and associate membership of Commissions.

### 3.1 Overall Resolutions and Communications

- 3.2.1. All the resolutions adopted at the London General Assembly have been placed on the IUPAP website. Commissions now have access to update or edit their respective sections. The president's report to the GA has been posted on the website together with the news article on the GA produced by the IOP. The General Report for 2012 is being finalized.

### 3.2 Commissions

- 3.2.1 Communication has been sent to the entire commission membership and liaison committees to inform them about the newly elected Commission Chairs. Outgoing chairs have been requested to facilitate the process of handing over to the new chairs. Eleven countries who previously did not respond to emails have also been communicated with using new contact details.

### 3.4. Finance:

- 3.4.1. The 2012 budget approved at the October 2011 C&CC meeting in London was modified following decisions made by the London General Assembly. The modified budget accordingly reflects a 3% increase in subscriptions for 2012. The 2012 member-states subscriptions are being processed with the increase as agreed at the November 2011 GA in London. The dues per share have increased from €1850 to €1905. The budget for 2012 and later years was further discussed under Section 4.3.

### 3.5. Formal Administration

- 3.5.1. In accordance with the decision of IUPAP Council, IUPAP UK was established two years ago as a British, not for profit, company in order to provide a legal entity in the UK as well as avoiding paying corporate tax on any investment returns. IUPAP UK is the legal body through which IUPAP is administered. The past IUPAP president Sukekatsu Ushioda, the IUPAP secretary general Robert Kirby-Harris and the IOP Communications director Beth Taylor are the company directors. The company secretary is Williamina Lazaro who is the IUPAP chief of administration.
- 3.5.2. Cecilia suggested that the website should be improved, and urged the Commission Chairs to make regular improvements and updates of their respective websites. It was requested that the Secretary General should obtain a quotation for the development of a new, improved website.
- 3.5.3. Williamina will email new chairs to guide them on steps to follow when updating websites.

### 3.6. IUPAP Membership

- 3.6.1. Kenya joined the IUPAP soon after the November GA, bringing the IUPAP membership to 60. Countries currently holding type B(0.5 share) and type C(nominal fee) memberships are being encouraged to consider taking type A membership which should entitle them to full share-holding.

### 3.7. Working Groups

- 3.7.1. Several significant changes to working groups were agreed by Council and endorsed by the GA in November 2011. The chair of PANAGIC has agreed that this working group should be disbanded and replaced by two separate working groups, one new, and the other with revised reporting arrangements. The Astroparticle Physics International Committee (APPIC) is now established as Working Group 10 (WG10). The chair of Gravitational Waves International Committee (GWIC) has agreed to GWIC becoming a full working Group of IUPAP (WG11). The energy working group has been renewed to become Working Group 12 (WG12). Jon Samseth, the IUPAP representative on SCOPE, has been invited to present at this meeting a proposal regarding the initial remit and membership of the revitalized working group on energy.
- 3.7.2. The revised membership of the joint IUPAP/IUPAC working group to validate claims for the discovery of new elements has recently been agreed following discussions of the president with members of the IUPAC Executive.

## 4. Business Matters

### 4.1. IUPAP 3-Year Cycle, Statutes and Bylaws

- 4.1.1. 2011: IUPAP General Assembly held in London in November. New officers and commission members were elected.
- 4.1.2. 2012 February: First Council and Commission Chairs meeting held in Cape Town to organize and plan activities to implement the resolution of the November 2011 General Assembly.
- 4.1.3. 2012 October/November: Council and Commission Chairs to meet and elect Associate Members, approve conference sponsorship for the 2013 cycle, receive reports from commissions and working groups, and consider the proposed budget forecast.
- 4.1.4. 2013 October/November Council and Commission Chairs meet to consider similar issues as in 4.1.3.
- 4.1.5. 2014 October/November: Council and Commission Chairs meet as a prelude to the 2014 General Assembly. And the IUPAP meeting Cycle repeats in 2015.

### 4.2. Member Categories: Dealt with under the Secretary General's Report

### 4.3. Finance

- 4.3.1. A budget projection for the financial years 2012, 2013 and 2014 was introduced by the president designate, Bruce McKellar. The presented budget used as the baseline the 2011 budget and the recently approved 2012 budget forecast as modified by the London GA. The budget projection for 2012, 2013 and 2014 differed from the version circulated with the meeting documents in that the circulated version did not incorporate changes made by the GA. The latest updated version is attached as *Appendix B*.
- 4.3.2. It was noted that the London GA varied the original proposal of a 5% increase in membership dues in 2012 and 2013 in favour of a steady three year phased increase of 3% per year, after which third phase the inflationary increase will subsequently be implemented. Furthermore it was agreed at the meeting that the funding of IAPS and SESAME and the energy working group should start in 2012 but the funding for the APPIC working group would not be needed because of the proposed 'merger' with C4.
  - i. Membership dues (Estimate) for 2012, and forecast for 2013 and 2014 are amended as follows:
    - a. 2012 – 407,000
    - b. 2013 – 419,000
    - c. 2014 – 432,000
  - ii. Total income
    - a. 2012 – 408,000
    - b. 2013 – 420,000
    - c. 2014 – 432,000
  - iii. Adjustments to working Groups – PANAGIC ceases to exist from the end of December 2011. The 2,500 Euros allocated to PANAGIC will be used by the Energy working group hence the 35,000 Euros budget allocated to working groups does not change.
  - iv. New Programmes (2011-Visiting Scientist/2012- 2014 – SESAME, IAPS): €7,000 allocated for SESAME and IAPS, with €5,000 for SESAME and €2,000 to IAPS.

The meeting agreed to recommend the revised budget to the Council.

## **5. Conference Rules and Regulations:**

- 5.1. Rudzani Nemutudi gave a presentation outlining the rules and regulations for conference sponsorship. He highlighted the need for Commission Chairs to ensure that conference sponsorship applications submitted through their commissions should be done online no later than the due date of 1 June of the year preceding the date of the proposed conference. He re-iterated how important it was for commissions to prioritize the conferences in cases of multiple requests for conference sponsorship. Whereas it remains the duty of conference organizers to submit a report after the sponsored conference event is held, Commission Chairs are requested to assist the IUPAP secretariat to get the organizers to submit such reports. Inclusion of women at all levels of participation is a pre-requisite for the funding of any conference.

## **6. Role of Liaison Committee, Commission Structure, Associate Membership, Commission Reports, Working Groups and Inter-Union Reports**

### **6.1. Role of Liaison Committee:**

- 6.1.1. A new booklet will be released soon which will contain all the updated information including input from the current C&CC meeting.

### **6.2. Commission Structure:**

- 6.2.1. No proposals were received.

### **6.3. Associate Membership:**

- 6.3.1. A proposal was approved for three members suggested for Associate Membership, *viz* Professor Michael Romanovsky from Russia (C3), Professor TaeWon Noh from Korea (C10), and Professor Soo-Bong Kim from Korea (C11).
- 6.3.2. Responding to a question from Cecilia Jarlskog, Robert Kirby-Harris explained that nomination for associate membership is done in consultation with commissions and national liaison committees. All the affected commissions, i.e. C3, C10 and C11, had indicated that they were happy with the people suggested for associated membership.

### **6.4. Brief Reports from Commissions:**

- 6.4.1. Brief oral reports were received from the following Commission Chairs or representatives of Commission Chairs, *viz* C2, C3, C4, C5, C6, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19 and C20, together with similar reports from Affiliated Commissions AC3 and AC4. Statements extracted from these reports are summarized in Appendix A.

### **6.5. Working Groups:**

- 6.5.1. APPIC (WG10): A list of eleven members has been obtained from the chair of AC2, with the name of Mike Witherall suggested as the possible chair or convener of the first meeting. Other names are Eugenio Coccia, Andrea Giuliani, Paolo Lipari, David Wark, Tom Gaisser, Takaaki Kajita, Bernard Sadoulet, Elena Aprile, Art McDonald, Steve Kahn and Christian Spiering. Following discussion and given the close overlap between C4 and the newly proposed APPIC it was suggested that the chair of C4 should contact Malcolm MacCallum to discuss the possibility of this working group being merged into or working closely with C4. The proposed change of name for C4 to Astroparticle Physics (which would be scheduled to take place after the celebrations of the centenary of cosmic rays) would make this even clearer.
- 6.5.2. GWIC (WG11): Robert Kirby-Harris has been in communication with the chair of GWIC who had indicated that he was quite content to report directly to IUPAP in future.
- 6.5.3. Energy Working Group (WG12): Jon Samseth reported that at the moment the broad mandate of the revitalized working group on energy will include energy topics of particular importance to developing countries as well as energy efficient uses including energy carriers. The names of a number of candidates have been received to constitute the working group. Jon Samseth further requested from the meeting some

input into the finalization of the mandate of the working group. Meeting agreed on the need to synchronize the efforts of WG12 with similar programs of ICSU, the IAEA, and the UNEP (United Nations Energy Programme). Marcia Barbosa pointed out the need for the energy group to be more focused as opposed to tackling a multiplicity of topics and issues simultaneously. Fridtjof Nüsslin underlined the need to define properly the overall objectives of the working group. Jon Samseth cautioned that focus areas of energy resources are dynamic as today's focus on e.g. solar energy may not be the same tomorrow. He stated that the report that would come out from the working group will not be written with Research Foundations in mind, and as much as it is possible the working group will be steered away from economic issues. The chair of C8 stated that it was vital to ensure a buy-in by a wide community of scientists. Samuel Bader, the past chair of Commission 10, collated a list of names from interested member states. It has been a challenge to ensure representation from each continent. Further comments included the need for the group to focus on specific topics for a given period of time, and releasing a report before moving on to a new topic. Jon Samseth felt that for a start the working group could explore more topics in parallel before narrowing its focus to one or two. An email will be sent to Physical Societies to collect more information and input. The final list of names of people nominated to serve in the working group will be forwarded to Council before they are released to the general public.

## **6.6. Inter-Union Groups: Nomination of Members**

- 6.6.1. Kennedy Reed, the past chair of C13, has been elected to the Executive Board of ICSU at its last General Assembly in September 2011 in Italy. He has agreed to act as the IUPAP liaison with ICSU.
- 6.6.2. Alexandr Kaminskii has been re-nominated as IUPAP representative on ICSU Committee on Freedom and Responsibility in the Conduct of Science.

## **6.7. ICSU Update**

- 6.7.1. Member on ICSU Committee on Freedom and Responsibility in the Conduct of Science: Alexandr Kaminskii re-nominated as IUPAP representative on ICSU Committee on Freedom and Responsibility in the Conduct of Science.
- 6.7.2. Relations with ICSU: Bruce McKellar gave an update on IUPAP relations with ICSU. He pointed out that as noted on the presented budget, the ICSU subscriptions have gone up tremendously, and the IUPAP should make sure that we extract from ICSU good value for our financial contribution. One area in which this can be achieved is in energy as ICSU itself is currently busy defining what should be a coherent position on energy. The area of sustainable energy is most likely to be one of the main focus areas of ICSU in the next few years. A workshop on Sustainable Sources of Energy is currently being organized through regional offices of ICSU. Another possible area of interaction with ICSU is through support grants. ICSU gives grants of up to €30 000 to proposals from its affiliated unions. Proposals stand a better chance of success if they can demonstrate co-operation with other unions on the projects, and a clear link with at least one of the ICSU regional offices. Cecilia Jarlskog pointed out what she considered to be unfair treatment of unions, citing as an example the nomination process of candidates into the Scientific Planning and Review Committee.
- 6.7.3. It was agreed that Bruce McKellar, Kennedy Reed and Paulo Murilo de Castro Oliveira would act as a working group to encourage and oversee the process to develop a proposal for an ICSU grant in the round expected to be announced in May, with 1 December 2012 as the submission deadline.

## **7. Review of Resolutions Approved at the November 2011 IUPAP General Assembly in London**

- 7.1. Meeting noted all resolutions of the 2011 IUPAP General Assembly, which are available on the IUPAP website. In particular meeting noted the need for expanded briefing on APPIC and the need for further consultation on the name change in regard to C17.
- 7.2. Robert Kirby-Harris has contacted the IAPS (International Association of Physics Students) and established that they are very keen to work with the IUPAP. A small budget will be allocated for interaction with the IAPS.
- 7.3. The IYL (International Year of Light) proposal has not yet been submitted to UNESCO. The government of Ghana in particular has taken high level efforts to support the IYL initiative in preparation for its presentation to the UNESCO Council.

## 8. New Developments

- 8.1. *Resignation of Turkey.*** Meeting noted that IUPAP is one of the many international scientific organizations from which Turkey is either resigning or suspending its membership. Cecilia proposed that a wait and see approach should be adopted with the hope that Turkey will in due course re-join the family of international scientific bodies such as the IUPAP. In the meantime, new members should be encouraged to join IUPAP.
- 8.2. *IUPAP Historical Archives:*** Meeting noted the necessity to develop a dedicated page on the IUPAP webpage for historical archives which cannot be changed. At this stage Cecilia once again expressed the need for the front page of the IUPAP website to be updated. Williamina stated that what is on the website is largely what has been inherited by the IOP (Institute of Physics) from the APS (American Physical Society), and that what is reflected is what was on the website at the time, and it was agreed that we would now update the core information. Cecilia also pointed out that the 100<sup>th</sup> Anniversary of the IUPAP is only 11 years away, and that it was important to locate all the IUPAP Archives long before the 100<sup>th</sup> Anniversary.

## 9. Provisional dates of the next C&CC Meetings and the General Assembly:

- 9.1.** Marcia Barbosa has volunteered that Brazil could host the next C&CC meeting in October/November 2012 in Rio de Janeiro. The suggested provisional dates are 21 – 22 October, 12 – 13 November or 16 – 17 November 2012.
- 9.2.** Cecilia Jarlskog has spoken to the director of CERN and received an in-principle agreement that CERN will host the next year (2013) C&CC meeting.
- 9.3.** The next IUPAP General Assembly will most likely be held in 2014 in Australia. Bruce McKellar has held preliminary discussions with the relevant authorities about the possibility of Australia hosting the next IUPAP GA. They have shown enthusiasm. A feedback will be relayed to the Australian Physical Society after the current C&CC meetings.
- 9.4.** The Committee was supportive of these proposals and looks forward to further developments in October

## 10. Any other business

- 10.1.** Stephen Lea, the Chair of C2 asked if commissions are allowed to endorse regional conferences such as the pending workshop on Atomic Clocks organized by the NanoAfnet. Robert Kirby-Harris stated that commissions could endorse workshops and focussed activities in their areas of expertise. In addition, reference was made, by Bruce McKellar, to Section V, item 3 on page 15 of the current IUPAP booklet which states that “Commissions may issue statements in their area of expertise subject to approval by the president”. Bruce however also emphasised that whether or not the above statement should be interpreted as granting powers to commissions to endorse workshops (or conferences) may need a more careful and focussed discussion. In this case it was agreed that C2 could not authorise these regional conferences.
- 10.2.** The secretary of C16 has been ill and has requested to be replaced as his ill-health is interfering with his duties. Hubertus Thomas has been proposed as a possible candidate for the replacement. This proposal was recommended to Council
- 10.3.** Countries with only one share should in future be encouraged to submit more than one candidate for inclusion into commission slates. When such countries submit only one candidate, the GA may find it necessary to omit that candidate in the interest of balancing the commission, leaving the member-state without a commissioner.
- 10.4.** Calls for submission of candidates for commission membership should be made as early as August of the year preceding the General Assembly.
- 11. **Vote of Thanks:**** Cecilia Jarlskog thanked all delegates for attending the first C&CC meeting so relatively soon after the November 2011 General Assembly. She extended special thanks to Rudzani Nemitudi and the whole of the organizing committee at iThemba LABS for hosting a successful C&CC meeting.

***C&CC Meeting adjourned***

## **Appendix [A]: Compilation of reports of individual Commissions**

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The following commission reports were presented by Commission Chairs or representatives of Commission Chairs.

### **1.1. C2: Commission on Symbols, Units, Nomenclature, Atomic Masses and Fundamental Constants-SUNAMCO (Stephen Lea)**

- 1.1.1. C2 is sponsoring one conference in the 2012 Conference on Precision Electromagnetic Measurement (CPEM 2012), to be held in Washington DC, on 1-6 July 2012. This is a major biennial conference which usually receives IUPAP sponsorship. Its scope embraces a significant portion of the field of fundamental metrology which is central to the mandate of C2. A Commission meeting will be held as a satellite meeting to CPEM. It is hoped that the commission will present the Young Scientist (Early Career) Prize in Fundamental Metrology and also the SUNAMCO Senior Scientist medal during the course of the CPEM. With a month to go before the 31 March deadline, nominations for the Young Scientist Prize have been coming in slow. However, an excellent candidate has been nominated for the Senior Scientist medal.

### **1.2. C3: Commission on Statistical Physics (Stefano Ruffo)**

- 1.2.1. The next Statphys25 meeting will be held in Seoul on 22 - 26 July 2013. The organizing committee, steering committee and international advisory committee are already appointed and are in operation. In March 2012 the call for the Boltzmann medal will be announced and, later in 2012, the call will also be released for the Young Scientist Prize.

### **1.3. C4: Commission on Cosmic Rays (Johannes Knapp)**

- 1.3.1. C4 is involved in the planning of a range of activities to celebrate the centenary discovery of cosmic rays. Activities are planned in Denmark, India, Germany and many other countries.
- 1.3.2. The next International Cosmic Ray Conference will be held in 2013 in Rio de Janeiro
- 1.3.3. Traditionally the results of many discoveries had been published in conference proceedings. C4 is currently trying to make these earlier proceedings available digital, although there are issues of copyright. Johannes Knapp asked if C4 could write a letter that states that the copyright for these proceedings resides with IUPAP as most of these discoveries were first reported at IUPAP sponsored conference events. Robert Kirby-Harris suggested that the advice of lawyers should be sought to establish, legally, who owns the copyrights.
- 1.3.4. The field of cosmic rays is now broadening, and while this acknowledgement does warrant the debate on the possible name change, such debate should be put frozen until after the centennial celebrations.

### **1.4. C5: Commission on Low Temperature Physics (Kimitoshi Kono)**

- 1.4.1. C5 will be sponsoring a Type-B conference, "QFS2012: International Symposium on Quantum Fluids and Solids" which will be held on 15 - 21 August 2012, at Lancaster University in the UK. A type conference will be held in 2014 at Buenos Aires, Argentina.

**1.5. C6: Commission on Biological Physics (Kenichi Yoshikawa)**

- 1.5.1. C6 has just initiated discussions to promote close co-operation with AC4.
- 1.5.2. The main topics in biophysics have shifted to the molecular structure of biological molecules such as DNA and proteins. For the determination of the molecular structure, methodologies of physics such as NMR and x-ray scattering have been actively applied.
- 1.5.3. The November 2011 C&CC meeting in London recommended C6 to consider possible cooperation with AC4, Medical physics.
- 1.5.4. In pursuit of the London recommendation, during the present meeting, the chairs of C6 and AC4 (Prof. Nüsslin) have initiated strategic discussion geared towards the anticipated cooperation between the commissions. AC4 will hold a conference at Beijing this year and another conference in UK next year. C6 will have A-type conference on the second next year in China. A possibility is being explored for a joint meeting between C6 and AC4 at these conferences. A joint workshop is also being explored as a possibility.

**1.6. C8: Commission on Semiconductors (Robin Nicholas)**

- 1.6.1. The commission met during the EP2DS/MSS conference in July 2011 in Tallahassee where plans were agreed on the administration of the Young Scientist Prizes to be awarded this year (2012) at the ICPS conference in Zurich. Due to the small number of nominations the deadline has been extended from 2 January to 1 March 2012. There is a growing concern that the Commission may need to use some of its discretionary funds to keep up the provision of IUPAP sponsored poster prizes at the conference due to the strong Swiss Franc.
- 1.6.2. The main activity of the commission is the organization of a type A conference, the International Conference in Physics of Semiconductors (ICPS). The next ICPS2012 will be held in Zurich, Germany, on 29 July – 2 August 2012. Following extensive consultation with colleagues in the USA earlier in 2011, it was also agreed to recommend that the ICPS2014 should be held in Austin Convention Center in Texas, USA, on 10 – 14 August 2014.

**1.7. C9: Commission on Magnetism (Ingrid Mertig)**

- 1.7.1. One of the main activities of C9 is to organize the International Conference on Magnetism, which is held every three years under the auspices of the IUPAP. The last one, the 18<sup>th</sup> ICM, took place in July 2009 in Karlsruhe, Germany. The 19<sup>th</sup> ICM will be held in July 2012 in Busan, Korea. The venue of 20<sup>th</sup> ICM in 2015 has been decided to be in Barcelona, Spain, and the 2018 venue will be decided in July 2012. It is most likely that the venue for 2018 will be elsewhere in North America. As the ICM has not been held in North America since 1985.

**1.8. C10: Commission on the Structure and Dynamics of Condensed Matter (Yasuhiko Fujii)**

- 1.8.1. C10 is co-sponsoring a category A conference, the 10<sup>th</sup> International Conference on Materials and Mechanisms of Superconductivity (M2S2012) which will be held in Washington D.C. on 29 July – 3 August 2012. The call for nominations for the Young Scientist Prize 2013 will be released in April 2012.
- 1.8.2. There is a nuanced understanding of the mandate of the commission as covering the area of condensed matter with the implicit inclusion of soft matter. Members are overwhelmingly in favour of explicit inclusion of soft matter in the define mandate of the commission since all fourteen (members) are from the Solid State Physics background. Following the recommendations of the 2011 London General Assembly, the Commission started discussions through e-mail among members and more intensive and systematic exchange of opinions will be made soon. The commission will submit a formal recommendation at the C&CC meeting in October/November 2012.

**1.9. C11: Commission on Particles and Fields (Hiroaki Aihara)**

- 1.9.1. C11 is co-sponsoring and taking part in organizing for the XXV International Conference on Neutrino Physics and Astrophysics, Neutrino 2012, ([neu2012.kek.jp](http://neu2012.kek.jp)) is planned for Kyoto, Japan from June 3-9, 2012. This is the major conference in the field of neutrino physics and normally attracts about 400 participants. The previous conference in this series was held in Athens, Greece in 2010 ([www.neutrino2010.gr](http://www.neutrino2010.gr)).
- 1.9.2. The 2013 Lepton-Photon symposium will be hosted by SLAC National Accelerator Laboratory in northern California and the 2014 ICHEP conference will be held in Valencia, Spain.
- 1.9.3. The second IUPAP sponsored Technology and Instrumentation in Particle Physics (TIPP) conference ([conferences.fnal.gov/tipp11](http://conferences.fnal.gov/tipp11)) was held from June 9 -14, 2011 in Chicago. The conference attracted about 500 registered participants and more than 400 submitted abstracts.

**1.10. C12: Commission on Nuclear Physics (Hideyuki Sakai)**

- 1.10.1. The annual meeting of C12 was held in Cambridge on 25 July 2011 at the Massachusetts Institute of Technology. The meeting followed the annual meeting of the IUPAP Working group 9 on International Cooperation in Nuclear Physics.
- 1.10.2. At the meeting the Commission selected a full slate of members and officers for C12 for the period 2012-2014, which consisted of continuing members and new members that had been proposed by the National liaison committees.
- 1.10.3. The commission plans to assist a type D conference in 2012. The next meeting of the commission will be organized just before the Tokyo conference.

**1.11. C13: Commission on Physics Development (Paulo Murilo de Castro Oliveira)**

- 1.11.1. The commission has on its schedule three main events for this year (2012), viz: 1. The African School on Electronic Structure Methods and Applications 2012, to be held in Eldoret Kenya (this is the second event of the school, the pilot event was hosted two years ago in Meizenburg, Cape Town, South Africa); 2. The Third African School and Workshop on X-rays in Materials, to be held in Dakar, Senegal; 3. SPECTRA 2012, to be held in Lima, Peru.
- 1.11.2. The commission requests all other Commission Chairs and members to announce in their respective countries and at workplaces the program for visiting scientists.
- 1.11.3. C13 members have also facilitated contacts with Physicists in Kenya, and Kenya has just become a member of IUPAP. Links are also being facilitated between Kenyan Physicists and other relevant IUPAP Commissions.

**1.12. C14: Commission on Physics Education (Robert Lambourne)**

- 1.12.1. The commission will participate in the organization of the following future conferences: Etetet World Conference on Physics Education on the theme The Roles of Context, Culture and Representations in Physics Teaching & Learning, Istanbul, Turkey, 1-6 July 2012 (the ICPE medal will be presented at the conference), XI Inter American Conference on Physics Education: Teaching of Modern Physics at Different Levels, University of Antioquia, Medellin, Colombia, 6-10 July 2013. The ICPE 2013 which will take place at Charles University, Prague, Czech Republic, in summer of 2013.
- 1.12.2. Commission will meet later in 2012 on PHYSWARE under the theme Educating the Educators. This year's meeting will take place in New Delhi hosted by the past chair of C14, Prathiba Jolly.
- 1.12.3. Currently C14 does not give the Young Scientist Prize medal, but it is doing its best to put in place mechanism to introduce the award. The plan is to invite nominations by next year (2013).
- 1.12.4. Katsu asked if C14 has been involved in the Physics/Science Olympiad, and the chair of C14 indicated that as far as he is aware, C14 has not been involved.

**1.13. C15: Commission on Atomic, Molecular and Optical Physics (Katharine Gebbie)**

- 1.13.1. The field of Molecular and Optical Physics is dominated by the two large International Conferences, viz ICAP and ICPEAC, which are held successively every 2 years. From this point of view due to the high self-organization of the Physists in the field, IUPAP does not play as dominant a role as it does in several other fields. This is the reason why the commission only met once a year.
- 1.13.2. Most important for C15 was the selection of the IUPAP Young Scientist Prize in AMO Physics. Ian Spilman from NIST in Gaithersburg and the University of Maryland was selected to be the 2011 prize winner for research on colliding Bose-Einstein condensates.
- 1.13.3. It was decided to have the next Commission meeting during the 23<sup>rd</sup> ICAP in Pailaiseau near Paris in July 2012.

**1.14. C16: Commission on Plasma Physics (Robert Bingham)**

- 1.14.1. The commission supported the 6th International Conference on the Physics of Dusty Plasmas (ICPDP), Garmisch-Partenkirchen, Germany, May 16-20, 2011, and International Topical Conference on Plasma Science (ITCPS): Strongly Coupled Ultra-Cold and Quantum Plasmas, Lisbon, Portugal, 12-14 September 2011.
- 1.14.2. Commission 16 is participating in the organization of ICPP 2012 to be held in Stockholm on 2 – 6 July 2012. The 2012 IUPAP Young Scientist Medal will be awarded at the opening session of the EPS/ICPP Plasma Physics conference.

**1.15. C17: Commission on Quantum Electronics (Victor Zadkov)**

- 1.15.1. During the last three years C17 has re-commenced sponsorship of conferences. In addition it has awarded its first Young Scientist prize. The next prize will be awarded in 2013.
- 1.15.2. The previous chair of C17 has submitted the proposal of change of name of the commission in order to reflect modern trends of development. The suggested name is Laser Physics and Photonics.

**1.16. C18: Commission on Mathematical Physics (Jakob Yngvason)**

- 1.16.1. The upcoming event for C18 is the 16<sup>th</sup> International Congress on Mathematical Physics (ICMP12), which will be held place in Aalborg, Denmark on 6 – 11 August 2012. The ICMP12 is organized jointly with the International Association of Mathematical Physics and supported by IUPAP as a Type A conference. A wide range of subjects in mathematical physics will be covered and more than 700 participants are expected. Two days before the conference a Young Researchers Symposium will be held which will include tutorial lecture series and presentation of own research will take place.
- 1.16.2. The prize subcommittee of C18 has chosen three laureates out of 17 excellent candidates for the IUPAP Young Scientist Prize. The prizes will be awarded during the conference in Aarhus.

**1.17. C19: Commission on Astrophysics (Victoria Kaspi)**

- 1.17.1. Commission 19 announces its Young Scientist Prize award every two years on the occasion of the Texas Symposium on Relativistic Astrophysics. The 26<sup>th</sup> Texas Symposium on Relativistic Astrophysics will be held in Sao Paulo, Brazil on 15 – 20 December 2012. The prizes will be awarded to winners during the 26<sup>th</sup> Texas Symposium. The winners will be invited to give their talks at this symposium
- 1.17.2. The commission plans to hold its next meeting at a symposium in Beijing, China in August 2012. At least 9 members plan to participate. The meeting is organized in Beijing where the General Assembly of the International Astronomical Union will take place. The commission will use the opportunity to discuss improvements of the commission's Web page and to further consolidate plans on related activities. [Cecilia quipped that she liked Astronomers but does not like their discoveries, especially the one on the expansion of the universe].

**1.18. C20: Commission on Computational Physics (Alex Hansen)**

- 1.18.1. The Conference on Computational Physics (CCP2012) was held on 14 – 18 October 2012 in Kobe, Japan with Dr. Hideki Takabe (Osaka University) as the organizer. The CCP2013 will be held in Moscow, Russia with Prof. Lev Shchur (Landau Institute in Chernogolovka) as the organizer. Members of C20 have visited the conference site and the conference chair, Professor Lev Shchur, is member of C20.
- 1.18.2. The APS has been contacted with respect to identifying candidates for organizing CCP2014 in the Americas. A C20 member, Professor David Landau, is now in charge of this process.
- 1.18.3. The commission received a bid from India to host the CCP2015. The bid proposes to organize the CCP2015 at the Indian Institute of Technology in Guwahati, Assam. The proposers are from IIT Guwahati and the Institute for Mathematical Sciences in Chennai. The commission expects to receive more bids to host the CCP2015. At present contacts are being created between the Indian organizers and the AAPPS - the Association of Asian-Pacific Physical Societies - since this organization has been instrumental in the process of identifying organizers.
- 1.18.4. The African School on Electronic Structure Methods and Applications (<http://asesma.ictp.it/>) is planned on a biennial basis from 2010 to 2020 to provide an introduction to the theory of electronic structure, with an emphasis on the computational methods for practical calculations. The 2010 school was held at the African Institute for Mathematical sciences (AIMS), Muizenberg, Cape Town, South Africa. The 2012 school will be held from May 28 to June 8 at Chepkoilel University College, Eldoret, Kenya. IUPAP sponsors ASESMA through the C13 and C20 commissions. The commission would like to highlight the fact that Professor Nithaya Chetty of the University of Pretoria, South Africa - and former C20 member – has been, and remains the key driving force behind this school together with Professor Richard Martin (Univ. Illinois) - also a former C20 member.
- 1.18.5. The Young Scientist Prize has been announced with a deadline for proposals in April 2012. This will be the sixth time it is awarded by the C20 commission. Typically, we receive some 30 proposals with little overlap from year to year. The prize is awarded at the CCP conference.

**1.19. AC1: International Commission for Optics - ICO (Duncan Moore, although not present at the meeting provided a brief report to the meeting)**

- 1.19.1. The ICO is supporting the 1<sup>st</sup> EOS Topical Meeting on Photonics for Sustainable Development – Focus on the Mediterranean (PSDM 2012) which will be held on 31 March – 3 April 2012 in Ramada Plaza Tunis, Tunis, in Tunisia.
- 1.19.2. The commission is undertaking a strategic planning exercise to forecast where the ICO should be in the next 10 years.

**1.20. AC2: International Commission on General Relativity and Gravitation (Malcolm MacCallum, apologized, not represented, the two paragraphs below represent the previous report, valid as at the last C&CC meeting in November 2011)**

- 1.20.1. The Commission sponsored the biennial Amaldi conferences of 2009 and 2011, and the Marcel Grossman meeting of 2009. It also held the latest of its own triennial conferences, the GR19. This took place in Mexico City in July 2010. During the conference, three meetings of the Commission took place, one to review the previous three years, one to select the site for GR20, and one to plan for the next three years. At a General Assembly of the Society, new officers were elected. Malcolm MacCallum was elected President, and Dr Beverly Berger became Secretary. It was agreed that GR20 would be held in Warsaw in 2013.
- 1.20.2. The GR19 was very successful, with a good attendance (over 750), some excellent plenary talks, and well-attended parallel sessions. During the meeting a number of prizes were awarded. The Xanthopoulos Prize (similar to but predating IUPAP Young Scientists Prizes) was presented to Stefan Hollands (Cardiff). The inaugural triennial Ehlers and Bergmann-Wheeler Prizes (for the best PhD theses in classical and quantum gravity respectively) were presented to Nicholas Yunes (Princeton) and Victor Taveras (Louisiana State). The Hartle Prizes, for student presentations at the meeting, were awarded to Amitai Bin-Nun (U Penn), Samuel Gralla (Chicago), Ian Morrison (UC Santa Barbara), Vivien Raymond (Northwestern), David Sloan (Penn State), Jan Steinoff (Jena), Charalampos Markakis (Wisconsin,

Milwaukee), Bethan Cropp (Wellington, New Zealand) and Francesca Vidotto (Marseille). The inaugural Chandrasekhar Prizes, for postdoctoral presentations at the meeting, were awarded to Parampreet Singh (Perimeter Institute), Mark Hannam (Vienna), Thomas Corbitt (LIGO Lab, MIT) and Woei Chet Lim (AEI). AC2 gratefully acknowledge support from FORTH (Greece), Springer-Verlag, the UK Institute of Physics Publishing, and World Scientific for the Xanthopoulos, Ehlers, Bergmann-Wheeler and Chandrasekhar Prizes respectively.

**1.21. AC3: International Commission for Acoustics – ICA (Michael Vorlaender) (Commission represented by its General Secretary Marion Burgess)**

- 1.21.1. The major activity for the ICA is the congress held every 3 years and in 2010 this was held in Sydney Australia with participation of around 1,000 acousticians (30% students). The ICA 2013 will be held in Montreal, Canada with between 1500 and 2000 delegates expected to attend. The ICA in 2016 will be held in Buenos Aires.
- 1.21.2. The ICA allocates the majority of its annual budget to encourage acoustics activities. The prestigious Early Career recognizes excellence in acoustics and is awarded at the congress and around 30 Awards are dedicated to encourage student and new graduates participation in the congress.
- 1.21.3. Annually the ICA provides support for specialist international symposia for those working in particular areas of acoustics. The range of topic areas for specialist symposia highlights the multidisciplinary approach in acoustics as the topics include "Acoustic Challenges in Aquatic Ecosystem Assessment" (Seattle, USA) "environmental acoustics and on buildings acoustically sustainable" (Caceres, Spain), "Applications of Nano technology and Ultrasound" (Trichy, India)," Noise Issues in Developing & Emerging Countries" (Osaka, Japan) and "Wave and Quantum Acoustics" (Gliwice, Poland).
- 1.21.4. The ICA is currently reviewing its governance and proposing changes to the Board structure aimed at encouraging greater participation by the member societies. The ICA is also watching with keen interest the planning for the International Year of Light as one of the goals of the board is to have an International Year of Acoustics.

**1.22. AC4: International Commission on Medical Physics - ICMP (Dr.Fridtjof Nüsslin)**

- 1.22.1. The ICMP is currently preparing for the World Congress to be held in Beijing in 2012. The last congress was held in Germany.
- 1.22.2. The call for the Young Scientist Prize has gone out with February as deadline of submission of candidates.
- 1.22.3. The Commission aims to use the occasion of the 50<sup>th</sup> Anniversary of the IOMP as an opportunity to address issues affecting the Medical Physics community, with a particular focus on developing countries.
- 1.22.4. The commission is also busy debating the name change. Biomedical Physics currently seems to be the favoured name.
- 1.22.5. Discussions have been held with the chair of C6 to promote co-operation between the two commissions and to find common ground of agreement on pointed issues of interest.

***End of Commission Reports***

**Appendix [B]: Approved Budget 2012-2014**

	2011	2012	2013	2014
<b>INCOME</b>				
Dues	395000	407000	419000	432000
Bank Interest	3000	1000	1000	1000
<b>TOTAL INCOME</b>	398000	408000	420000	433000
<b>EXPENDITURE</b>				
Conferences	148000	148000	148000	148000
Conference/travel grants	42000	42000	42000	42000
ICTP publications for developing countries	3000	3000	3000	3000
ICPE News letter	3000	3000	3000	3000
Commissions	23000	30000	30000	30000
C&CC meetings	48000	70000	35000	50000
Young scientist prizes	12000	12000	12000	12000
Working Groups	50000	35000	37500	37500
Developing Countries Workshop	14000	21000	21000	21000
New Programmes	5000	7000	7000	7000
General Report/Newsletters	5000	5000	2000	2000
ICSU	13000	19400	19400	19400
ICST	1000	1000	1000	1000
Secretariat	31000	40000	40000	40000
President	5000	5000	5000	5000
GA	15000			50000
Banking and accounting	3000	11000	11000	11000
Liability Insurance	1000	2000	2000	2000
Contingency	7000	7000	7000	7000
<b>TOTAL EXPENDITURE</b>	429000	454400	425900	490900
<b>SURPLUS</b>	-31000	-53400	-5900	-57900