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**International Union of Pure and Applied Physics  
Meeting of Executive Council  
Chicago, United States of America, 24 October 2009**

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**Present**

Sukekatsu Ushioda (President), Alan Astbury (Past President), Robert Kirby-Harris (Secretary General), Rudzani Nemutudi (Associate Secretary General), Williamina Lazaro (Administrator); Vice Presidents at Large: Marcia Barbosa, Alexandr Kaminskii; Vice Presidents/Commission Chairs: Patricia McBride, Samuel Bader, Klaus von Klitzing, Henri Orland.

In Attendance: Judy Franz

**1. Remarks from the President**

Sukekatsu Ushioda acknowledged the presence of Judy Franz and commended the full attendance of the C&CC meeting.

**2. Minutes of the last meeting**

The minutes of the council meeting held in London, UK on 7 February 2009 were approved.

**3. Formal noting of the Audit Report**

The auditor's report was accepted by council. Council takes overall responsibility for all IUPAP affairs. An insurance protection has been arranged for personal liability.

**4. Approval of 2010 budget**

4.1 The projected 2010 budget was modified in light of an "explosion" in the number of type D conferences and workshops to be supported during the 2010 funding cycle.

4.2 The budget re-calculation was also necessitated by the introduction of the visiting scientist programme, together with a limited number of type D conferences which the C&CC meeting has approved for travel grant support.

4.3 Revised 2010 budget accepted, with the projected total income of €406 000, against a revised projected deficit of -€38 000

**5. Approval of Associate Members**

Williamina will send out to council members an updated list of Associate members of commissions. Marcia Barbosa requested that the list should first be sent to commission chairs to ensure its correctness.

**6. Approval of 2010 budget**

A total of 34 conferences were approved. Category A conferences, 9 in total, will each receive a conference sponsorship of €10 000 together with a travel grant of €3 500. A

total of 11 category B conferences will each receive €6 000. Of the 8 category C conferences endorsed for IUPAP support, a total of 5 will also receive a travel grant of €3 500. Five type D conferences and Workshops will receive conference sponsorships ranging from €5 000 to €7 000.

## 7. Approval of Visiting Scientist Proposal

The visiting scientist proposal was approved with modifications as discussed the previous day at the C&CC meeting. The idea of a dedicated visiting scientist committee was endorsed, with the chair of C13 as the convener.

## 8. Ratification of:

8.1 Young Scientist Prize rules: The rules submitted by AC2 should be checked for consistency with the overall IUPAP rules for the Young Scientists Prize. Alan Astbury suggested that should IUPAP grant support for the submitted proposal, words such as "Applied" should be dropped and reference should only be on "Optics" to be consistent with the name of the commission, i.e. International Commission for Optics. Phrases such as "Maternity leave" and "military service" should also be taken out and replaced with "career interruptions". Council conditionally approves proposed rules for the ICO young scientist prize pending incorporation of the suggested changes.

8.2 Increase membership of China, Beijing, from 8 to 12 shares: Approved by Council

8.3 Nomination of Jon Samseth as IUPAP representative on SCOPE: Approved by Council, though questions remain about the long term future of SCOPE. Council noted that there was, at the time of the last GA, a big debate about terminating the activities of SCOPE.

8.4 Nomination of Carmen Cisneros as IUPAP liaison to ICO: Nomination approved by council. Judy Franz mentioned that the major problem is the payment of costs to attend meetings, but Carmen Cisneros may still interact and discharge liaison duties without attending meetings.

8.5 Nomination of Stephen Lea as IUPAP representative on ICNTS (International Committee of Terminology, Nomenclature and Symbols): Approved by Council. This nomination was recommended by Peter, former Associate Secretary General.

8.6 Joint Working party report on element 12: Judy Franz mentioned there is a general standing agreement which requires that five members of IUPAP and five from IUPAC should constitute an expert group anytime when there is a new element discovered. Judy further suggested that there was a need to ensure that the membership of such group is continuously renewed and constituted according to the new element. Once the committee completes its recommended task, for Element 12 for example, the committee should dissolve because it has carried out its specific mandate. Alan Astbury felt that the constituents of the committee should not be from the same region where the discovery claim is made. Council recognizes the fact that IUPAC should always be involved in the adjudication process of new element discoveries since the business of naming new element has historical been left to Chemists.

## **9. Future Meeting Plans**

- 9.1 The next C&CC meetings will be held on Friday 5 and Saturday 6 November 2010 in Delhi, India. People are urged to make travelling plans to arrive no later than 3 November as the organizers are planning for some activities before on 4 November 2010.
- 9.2 It is Europe's turn to host the 2011 IUPAP General Assembly. At the last General Assembly in Japan, Vienna offered to host the 2011 GA. A concern was expressed on the lack of (Email) communication efficiency on the part of the local contacts in Vienna. Judy Franz emphasized that it was extremely important to communicate with local contacts for council to finalize the decision on Vienna hosting the 2011 IUPAP GA. Dates of the GA will be finalized after further consultation with local contacts in Vienna.

Sukekatsu Ushioda thanked all for attending the council meeting.

*Meeting adjourned: Saturday 24 October 2009*

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# International Union of Pure and Applied Physics Meeting of Executive Council and Commission Chairs Chicago, United States of America, 23-24 October 2009

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## Present:

Sukekatsu Ushioda (President)), Alan Astbury (Past President), Robert Kirby-Harris (Secretary General), Rudzani Nemutudi (Associate Secretary General), Williamina Lazaro (Administrator);  
Vice-Presidents at large: Alexander Kaminskii, Marcia Barbosa, Mustansir Barma;  
Vice-President/Commission Chairs: Henri Orland, Sadamichi Maekawa Klaus von Klitzing, Samuel Bader, Patricia McBride;  
Commission Chairs: Peter J. Mohr, Suresh Tonwar, Robert Hallock, Jose N Onuchic, Dan-Olof Riska, Kennedy Reed, Pratibha Jolly, Burkhard Frickle, Padma Kant Shukla, Alan Shore, Virginia Trimble (for Maria Victoria Fonseca), James Gurbenatis, A.T. Friberg (for Maria L. Calvo), Abhay Ashtekar, Samir N.Y. Gerges, Fridtjof Nüsslin.

In attendance: Judy Franz

## Apologies

Apologies received from: Herbert Spohn and Cecilia Jarslog (President-Designate)

### 1. Welcome and introductions

President Sukekatsu Ushioda welcomed everyone to the meeting. All commission and council members introduced themselves.

### 2. Minutes of the Meeting held on 6 & 7 February, London, UK London

Minutes of the 06 – 07 October 2009 meeting in London, UK, were approved with the following corrections

- 2.1 Section 14 page12: The section under C14 Physics Education is not the C14 report but a subsection of the C15 commission report. See Annexure A for the C14 Physics Education Commission report.
- 2.2 Section 14 page 13 C16 Plasma Physics report: Second paragraph, last sentence to read “The 2011 ICPIG to be held in Belfast”.
- 2.3 Section 16 page 16: 1<sup>st</sup> paragraph: “...accumulated prizes.” should read “...accumulated prizes.”

### 3. Reports from the President and the Secretary General

#### 3.1 Report from President

3.1.1 Since the February C&CC meeting in London, President Sukekatsu Ushioda has been appointed president of his institute, the National Institute of Materials Science (NIMS) in Japan in July 2009. He has in his role as the IUPAP president visited ICSU in Malaysia. He attended the Annual Nanotechnology Forum, and also attended a conference in Kuala Lumpur where he encouraged scientists in Asia to join IUPAP. Judy Franz indicated the need for the IUPAP president to also consider going to Vietnam to boost the IUPAP membership recruitment drive as senior physicists in that region seem to be frustrating efforts by a number of other physicists to join the IUPAP.

3.1.2 Meeting noted the president’s new role as the director of NIMS.

#### 3.2 Report from Secretary General: Robert-Kirby Harris

##### 3.2.1 Finance

Robert Kirby-Harris reported that the process to move accounts and funds to the UK has been completed, with only one certificate yet to mature before the end of the year. Reduction in IUPAP income may occur because of a significant number of outstanding member payments.

### **3.2.2 Administration**

3.2.2.1 Williamina Lazaro has taken over the considerable amount of administrative work as the IUPAP secretariat, with the IOP finance and IT departments providing critical logistic support. A possibility is currently being explored to apply for a charitable status for IUPAP in the UK. IUPAP charitable status is currently maintained by Jacquelyn Beamon-Kiene from the APS in the USA.

3.2.2.2 Website transfer to IOP server has now been completed. Possibility is still under consideration to provide server space at IOP for commission websites. Issues to consider in this regard include staff implications together with the likelihood of commission members having to use IOP specialist systems to remotely update websites. Judy Franz indicated that a number of commissions, probably two third, were run as suggested. There are also other commissions that still do not have websites despite the fact that Judy Franz had repeatedly requested that they should set up their own websites.

3.2.2.3 The IUPAP 2009 Newsletter has been compiled and will be disseminated after the inclusion of the president's address.

### **3.2.3 IUPAP Membership**

3.2.3.1 Application by the Czech Republic to increase their shares from 2 to 4 was approved at the previous C&CC meeting, and the Czech Republic have since paid their dues.

3.2.3.2 The application by China to increase their shares from 4 to 8 was approved through electronic consultation. This approval is to be ratified by Council.

3.2.3.3 Three countries have expressed their interest in joining the IUPAP: Malaysia, Ecuador and Iran. Necessary procedural details have been communicated to the three countries and formal responses are awaited. Alan Astbury indicated that membership category C was full and that category B is the one still open for new membership.

### **3.2.4 Meetings attended**

3.2.4.1 Since the February 2009 C&CC meeting in London, the secretary general visited ICSU in Paris, during May where he met with Professor Deliang Chen, the Executive Director, and Carthage Smith, the Deputy Executive Director. The secretary general also visited UNESCO where he met Minella Alarcon, the Programme Specialist responsible for Physics and Mathematics who was representing Maciej Nalecz, the director of basic and Engineering Sciences Division. The UNESCO meeting was a follow up on the formal agreement of the Memorandum of Understanding between the IUPAP and UNESCO Basic and Engineering Sciences Division.

### **3.2.5 General Assembly Resolutions**

3.2.5.1 General Assembly Resolutions were forwarded to Liaison Contacts and National Societies for dissemination on the "Importance of Active Learning and Hands on Physics Education" and on the "Statement on Universality of Science"

### **3.2.6 Nominations made to Scientific Committees**

3.2.6.1 The nomination by IUPAP of Alexander Kaminskii to ICSU's Committee on Freedom and Responsibility (CFRS) has been accepted.

3.2.6.2 John Samseth has been nominated as IUPAP representative on SCOPE, and Carmen Cisneros as the IUPAP liaison to ICO.

3.2.6.3 The chair of C2, Peter Mohr, has nominated Stephen Lea as the IUPAP representative on the ICTNS (Interdivisional Committee of Terminology, Nomenclature and Symbols) of IUPAP until 2011.

### **3.2.7 Joint Working Party Report on the Discovery of Element 112**

3.2.7.1 A report of the Joint Working Party on the Discovery of Element 112 was received on 6 April from John Jost, director of IUPAC, with a request for approval. Both the letter and the report were sent to Commission chairs and Council members. Owing to time constraints, the secretary general consulted with the past president, Alan Astbury, before he wrote back to the IUPAC indicating our support. The chair of Commission 15, Burkhard Fricke, is a member of the Joint Working Party on the Discovery of Element 112. The report will be re-sent to Commission chairs in case some did not receive it.

### **3.2.8 BIPM Reports**

3.2.8.1 The BIPM reports from the joint committee for Guides in Metrology (JCGM) 102 and 106 have been received and forwarded to Commission 2 for them to respond.

### **3.2.9 ICSU**

3.2.9.1 Opinions of Commission chairs and Council members were canvassed regarding the Application for admission as a Union Member by the International Sociological Association. The application was supported on the basis of overall positive response.

3.2.9.2 The proposed dates for the ICSU Unions meeting are 7-8 April 2010 in Paris, and possible dates for the 30th ICSU General Assembly are 26-30 September 2011 - agreed in consultation with the hosts, the Consiglio Nazionale delle Ricerche (CNR) in Rome. These dates should be considered when planning future IUPAP meetings. Details have been received of the ICSU Grants Programme for 2010 and thorough consideration should be given on how to make an application to ICSU.

3.2.9.3 The problem of holding IUPAP and ICSU General Assemblies too close in time is to be avoided in the future. Meeting noted that the IUPAP president plans to attend the ICSU Unions meeting on 7-8 April 2010 in Paris.

### **3.2.10 SESAME**

3.2.10.1 A formal letter was received from Professor Vera Lüth, chair of the US Liaison Committee requesting IUPAP support for the SESAME initiative, in particular the possibility of significant US funding under their 'stimulus package'. The IUPAP president, Professor Katsu Ushioda has responded positively on behalf of IUPAP. The IUPAP is also seeking support for the initiative from ICSU through ICSU council members, and Maria L. Calvo (President AC1, Optics) has forwarded to ICO a supportive letter asking for inclusion of SESAME as a topic for their annual meeting with a further request that a link be established on the ICO website. The president is planning to meet with a Japanese colleague who is a chemist and ICSU vice president to discuss support for the SESAME initiative.

3.2.10.2 Letter to President Obama: Kennedy Reed indicated that he contributed in drafting the letter and that the letter was not connected with the "Stimulus package". Judy Frantz confirmed that the stimulus package only deals with US domestic issues.

### **3.3 IUPAP dues and Reserves**

3.3.1 Judy Franz highlighted that the IUPAP has large reserves, partly because the dues were collected in Euros and spent in dollars.

3.3.2 Robert Kirby Harris indicated that although a lot of money has often been received late, most countries are paying up their dues, and IUPAP is currently within 10% of full collection. Countries that are in arrears are being continuously reminded to pay their dues.

3.3.3 A total of eight countries have their dues outstanding from previous years. A member state can forfeit voting rights if it fails to pay for three consecutive years, and membership can be revoked if member state fails to pay for six years.

### **3.4 Refusal of Visas for Iranian Scientists**

- 3.4.1 Meeting noted that a number of Schengen States continue to refuse issuing visas to scientists from Iran. With the number of these cases gradually increasing, a registry should be kept on record for possible future publication. This idea should also be discussed with ICSU.
- 3.4.2 Sukekatsu Ushioda highlighted the importance of verifying if the UN Resolution 1737, which imposes certain restrictions and sanctions on Iran, does extend into the movement of scientists, for if so, then most governments will most probably tend to go along with the UN than with ICSU.
- 3.4.3 Judy Franz referred to page 36 of the 2009 IUPAP General Report on the “Statement on the Universality of Science”, the end part of which reads “If Scientists are excluded from attending IUPAP-sponsored international conferences by a host institution or country on the basis of factors such as ethnic origin, religion, citizenship, language, political stance, gender or age, IUPAP should register its concern at the highest level of that institution or country until such exclusions have been eliminated”.
- 3.4.4 Marcia Barbosa underlined the importance of documenting, with verification, details of such cases of “excluded” scientists around the world who have been denied visas to attend conferences on the basis of their nationality and related factors cited in the “Statement on the Universality of Science”. When such cases are clear, IUPAP should invoke its resolution to register its concerns at the highest level.

## **4. Financial Statements**

### **4.1 2009 year end forecast**

- 4.1.1 Financial Audit has been done and a line has now been drawn on the USA-leg of the budget. The budget will now be presented in Euros. All transfers have been finalized, with Women in Physics staying under Jacquelyn Beamon-Kiene.
- 4.1.2 Meeting noted radical reduction in the projected year-end interest which is a direct result of the banks’ response to the current global financial meltdown.
- 4.1.3 With the projected 2009 year-end income of €408 000, and a forecast deficit of €35 500, against the backdrop of €700 000 reserves, the IUPAP finances remain in good shape.

### **4.2 2010 proposed budget**

- 4.2.1 Total income of €406 000, with virtually no interest (~ €1 000).  
Conferences €156 000, travel grants €49 000, young scientist prize €12 000, working groups 35 000, commissions €23 000, developing countries workshops €31 500, General Assembly reserves €15 000. Total forecast 2010 expenditure €441 500. Projected deficit -€35 500. [Appendix \[1\]](#).
- 4.2.2 UK laws require financial statements of IUPAP to be presented in both Euros and British pounds.
- 4.2.3 Marcia Barbosa asked if all member states are assumed to have paid their dues. Robert Kirby Harris pointed out that a €10k provision has been made for countries that have not paid their dues.

## **5.0 Report on Young Scientists Prize – medal and certificates from Commissions that have awarded the prize over the last year**

- 5.1 Padma Kant Shukla has a list of young scientist prize winners for commission 15, which list is also available on the website.
- 5.2 Alan Astbury explained that commissions could award a Young Scientist prize every year or three in any one year during their three year term.
- 5.3 When asked if it was possible to split the YS prize money between two candidates, Sukekatsu Ushioda pointed out that there it was never intended to share one prize, and Judy Franz emphasized that the idea of sharing a prize was never discussed; and in her view, had it been tabled for discussion, it would not have been accepted.

- 5.4 The current website list of Young Scientist Prize winners should be updated.
- 5.5 Commissions which have awarded the Young Scientist Prizes over the last few years were requested to mention such awards in their commission reports.

## **6.0 Approval of Conferences**

- 6.1 All applications requesting support for type D conferences/workshops should in future be submitted to C13, i.e. C13 is expected to screen all type D conference applications. This was never stated as a rule when type D conference category was first introduced, but will now be adopted as a working principle.
- 6.2 Marcia Barbosa expressed concern about the rigidity of circulating type D conferences since other developing countries in a given region may lack proper infrastructure to host a successful conference event.
- 6.3 Both Judy Franz and Kennedy Reed stressed the importance of promoting the practice of circulating conferences. While exceptions could be accommodated in clear cases where alternative hosts are not viable, the principle of conference circulation must not only remain an ideal, but one that is actively promoted.
- 6.4 The Latin American Workshop on Magnetism, Magnetic Materials and their Applications will in the meantime be treated as a C category conference on the basis of its current regional confinement. Reference was made to page 45 of the 2009 IUPAP General Report for further clarity on the International Character and Accessibility of sponsored conferences under International conference criteria and requirements.
- 6.5 Rudzani Nemutudi gave a presentation of 2010 conference applications which have been endorsed for IUPAP funding by various relevant commissions.
- 6.6 Alan shore mentioned that he had received a type D conference application for LAM 9 to be held in Senegal. Kennedy Reed pointed out that such application had been received earlier by C13 and has been approved for sponsorship. This conference was originally scheduled to be held in November 2009 but was re-scheduled for January 2010.
- 6.7 Marcia Barbosa emphasized the importance of knowing how the number of women participants changes with time, especially for series conferences.
- 6.8 Judy Franz indicated that conference organizers should provide proof that women are included in organizing committees and as conference speakers before the allocated sponsorship is released.

## **7.0 Election of Associate Members for Commissions**

- 7.1 Judy Franz explained that the idea of associate members was to try and link commissioners to other groups as opposed to simply adding more people in a commission.
- 7.2 The rules state that up to four associate members can be appointed to a commission. However, in cases where there are peculiarities within individual commissions, special request could be made for council to grant approval for five associate members.
- 7.3 Nominations of associate members could be done by any commission, but the final decision rests with the commission to which an associate member is nominated. Commissions may themselves also nominate associate members from other commissions.
- 7.4 Judy Franz said that although it is not a bad idea, achieving geographical representation was not the stated purpose of (the idea of) associate membership.
- 7.5 Williamina Lazaro will compile the final list of associate members for all commissions, which list will be circulated to commission chairs to verify its accuracy.

7.6 The concept of Associate Membership is not applicable to Affiliated Commissions AC1 and AC2.

## **8. Reports from Commissions**

The following commission reports were presented by commission chairs or representatives of commission chairs

### **8.1 C2: SUNAMCO (Commission on Symbols, Units, Nomenclature, Atomic Masses and Fundamental Constants)**

Report not in

### **8.2 C3: Statistical Physics (Henri Orland)**

8.2.1 The main activities of the C3 Commission since July 2007 have been the organization of the Statphys 24 conference and ii) the call for nominations for the Boltzmann prize. Statphys is the main international conference of the C3 Commission, and is a major meeting point for the international Statistical Physics community. At the last Statphys 23 conference in Genova, the C3 Commission voted that the venue for the coming Statphys 24 conference would be Cairns Australia.

8.2.2 At the previous Genova meeting (July 2007), the C3 Commission named six of its members to serve on the Steering Committee (SC): H. Orland (Chairman), A. Bray, M. Telo da Gamma, S. Ruffo, S. Ramaswamy and M. Wadati. The Australian National Organizing Committee, headed by M. Batchelor, J. de Gier, M. Gould, J. Links, and D. Evans, proposed additional SC members to the C3 commission, and after some discussions, 6 more SC members were added to cover all relevant topics; viz E. Domany, D. Evans, E. Fradkin A.J. Guttmann, V. Rittenberg, F. Sciortino.

A large International Advisory Committee (IAC) was jointly selected by the C3 Commission and by the National Organizing Committee. The C3 Commission selected a list of eleven conference topics: General aspects of statistical physics, Mathematical aspects, Nonequilibrium processes, Quantum systems, Fluids and soft matter, Surfaces and Interfacial phenomena, Non-linear phenomena, Disordered and glassy systems, Biological physics, Statistical modeling of biological data and Interdisciplinary topics in statistical physics

8.2.3 The IAC sent out nominations for plenary and invited talks for Statphys 24. The SC met in Paris on July 3 and 4, 2010, and selected a list of 44 speakers for the conference from those proposed by the IAC.

8.2.4 Commission C3 is also responsible for awarding the Boltzmann Medal as well as the Young Scientist Prize. As of October 23, 2009, the files of the candidates nominated for the Boltzmann Medal have been sent out to the members of the Boltzmann Medal Jury (C3 Commission, previous Boltzmann medallists, chairman of the previous C3 Commission, and the Scientific Chairman of the Statphys 24 Conference) and the first round of vote is expected for December 9, 2009. The Young Scientist Prize will be dealt with in early 2010.

### **8.3 C4: Cosmic Rays (Suresh Tonwar)**

8.3.1 C4 is organizing a conference scheduled to be held in Beijing, China in 2011. The conference is a special Interaction Symposium on Cosmic Rays to commemorate the discovery of cosmic rays in 1912. Last conference drew a total of 600 participants, 120 of which were women.

### **8.4 C5: Low Temperature Physics (Robert Hallock)**

8.4.1 C5 held a commission meeting in association with LT25 (Type A, Amsterdam, August 2008), sponsored conferences, successfully launched the IUPAP Young Scientist Prize in low temperature physics and created the web-site on the IUPAP homepage. The commission also added a member from Egypt to bring the total membership to 14. Future meetings are recommended for IUPAP approval. The major international prizes in Low Temperature Physics (London and Simon Awards) were presented at LT25 with plenary lectures by the recipients as were the first of the Young Scientists Prizes, with invited talks presented by the recipients. QFS2009, the Quantum Fluids and Solids Conference was held in Evanston, Illinois, USA in August 2009.

8.4.2 The first IUPAP Young Scientist Prizes in low temperature physics were given at the LT25 conference in August 2008. The recipients (and their current locations) were: Dr. Dai Aoki from CEA-Grenoble, France, for his contribution in the discovery of co-existence of superconductivity and ferromagnetism in URhGe, Dr. Kostya Novoselov from University of Manchester, UK, for his contribution in the discovery of graphene and for pioneering studies of its extraordinary properties, and Dr. Viktor Tsepelin, from Lancaster University, UK, for the development of new experimental techniques and key discoveries in the fields of <sup>3</sup>He crystals and quantum turbulence.

### **8.5 C6: Biological Physics (Jose Nelson Onuchic)**

8.5.1 The C6 commission is moving forward with the preliminary plans for the International Conference in Biological Physics to take place in San Diego, California during the days of 22-24 of June in 2011. The conference will be preceded by two workshops focused on young scientists (graduate students and postdoctoral fellows) and more senior scientist who are switching into the field of biological Physics. The members of the Local/USA and the International organizing/scientific committees are now being selected. During the summer we expect to have all the invitations sent for the speakers and start advertising it.

8.5.2 Conference dates: Workshops Sunday/Monday /Tuesday – June 19/20/21 – 2011 Conference Wednesday/Thursday/Friday – June 22/23/24 – 2011. Two workshops are planned, one on molecular biological physics with connections to cellular networks, and the other on the physics of cellular networks and the cytoskeleton. Physical modelling of evolution could also form part of the second workshop. The main conference programme will include an opening lecture in the first day and a closing lecture in the third day. It will also have three additional keynote lectures, one in the afternoon of the first days and the other two in the mornings of the second and third days. In the mornings of the three days and in the afternoons of the first and the third days, there will take place a total of ten symposia (always two running simultaneously). In the afternoon of the second day, a major poster session will take place that will be followed by the social gathering of the conference. By June 1st a proposal will be submitted requesting IUPAP support for this conference. This international conference is the only event that C6 has requested support.

8.5.3 The associate members selected for C6 are: Henri Orland, Marcia Barbosa and Fridtjof Nusslin.

### **8.6 C8: Semiconductors (Klaus von Klitzing)**

8.6.1 The C8 commission met on 23.7.2009 at Kobe, Japan, in connection with the EP2DS/MSS conference. The commission discussed mainly the applications for IUPAP conference support and the IUPAP Young Scientist Prize (YSP) and made following recommendations:

- The young Scientist prize be awarded at the ICPS-30 in Seoul.
- The deadline for the nomination of the YSP winner was 1 Dec 2009
- The following associate members were nominated Paul Leiderer (C5) and Michelle Simmons (C17)

### **8.7 C9: Magnetism (Sadamichi Maekawa)**

8.7.1 The last International Conference on Magnetism (ICM) was held in Karlsruhe, Germany, on July 26–31, 2009. The conference was attended by more than 1 500 people and had a total of 1550 participants. One of the highlights of the conference was the gold medal awarded to Prof Stuart Parking of IBM. The Young Scientist Prize was also presented for work done in the newly emerged area of spintronics. The next ICM conference will be held on July 18 – 13, 2012 in Busan, Korea. The organizers expect no less than 2 000 delegates to attend the ICM2012. The ICM is held every three years. The site of ICM in 2015 is under discussion among the C9 members. The decision will be made in the beginning of 2010

### **8.8 C10: Structure and dynamics of Condensed Matter (Samuel Bader)**

8.8.1 Members of C10 Commission are now communicating with each other a 6 weeks interval.

8.8.2 The winner of the first C10 IUPAP Young Scientist Prize is Prof Feng Wang from the Physics Department at the University of California, Berkeley for “groundbreaking work on low dimensional

graphitic materials utilizing optical spectroscopies". The prize will be awarded at the American Physical Society March Meeting to be held in Portland, Oregon, USA on 16 March 2010.

- 8.8.3 Two associate members have been proposed to join C10, both of whom are well known to IUPAP: The proposed members are Prof Jose-Luis Moran-Lopez of Mexico and Prof Peter Svec of Slovakia.
- 8.8.4 Although Commission 10 does not have its own conference series, it has been decided that the Young Scientist Prize (YSP) annual presentation will be given at a major existing conference, such as APS, EPS, or a comparable Asian meeting. A flyer which C10 circulated, encouraging nomination of and from women and other under-represented groups seems to have been completely misunderstood as this resulted with a lot more men being nominated.
- 8.8.5 The Commission is also considering embracing new facility (synchrotron or neutron source) user meetings as well, such as those in Taiwan, Shanghai, Jordan, or the USA (SNS in Oak Ridge, Tennessee, or LCLS on the Stanford University campus in California).

### **8.9 C11: Particles and Fields (Patricia McBride)**

- 8.9.1 The C11 Commission held its annual meeting in August, 2009 during the 24th International Symposium on Lepton-Photon Interactions (LP09) in Hamburg, Germany. The next Lepton-Photon Symposium will be held in Mumbai, India in August 2011.
- 8.9.2 The next C11 Commission meeting will be held in July 2010 during the upcoming 35th International Conference on High Energy Physics (ICHEP) in Paris, France. The two 2010 C11 Young Scientist Prizes will be awarded at the Paris ICHEP meeting.
- 8.9.3 The interdisciplinary conference "Neutrino 2010", the XXIV International Conference on Neutrino Physics and Astrophysics is planned for June 2010 in Greece.
- 8.9.4 The 1st International Particle Accelerator Conference will be held in May 2010 in Kyoto, Japan. This conference covers a broad range of topics in accelerator physics and technologies. The first Technology and Instrumentation in Particle Physics (TIPP09) was held in March 2009 in Tsukuba, Japan. The conference was well attended with many sessions on detector design and development. The second TIPP conference will be in 2011 in Chicago.
- 8.9.5 C11 has identified the challenge of measuring and recognizing achievement of scientists working in large experiment collaborations and plans to study the format of the major international conferences in the field.

### **8.10 C12: Nuclear Physics (Dan Olof Riska)**

- 8.10.1 IUPAP Young Scientist Prize in Nuclear Physics: C12 will award 3 IUPAP young scientist prizes at the International Physics Conference (INPC 2010) in Vancouver on 5 – 9 July 2010. A total of 22 nominations had been received at the end of the deadline for nominations, which call for nominations had been announced worldwide in nuclear physics journals and through nuclear physics divisions of national physical societies. The selection process is currently underway.
- 8.10.2 The annual meeting of the commission C12 was held at the University of Bonn on August 31, 2009 in connection with the IUPAP sponsored conference International Conference on Few Body Physics FB 2009.
- 8.10.3 Associate Membership nominations to other commissions: The following C12 members were nominated to other commissions and working groups: Johanna Stachel (nominated for C11, Particles and Fields), Bikash Sinha (nominated for C19, Astrophysics), Don Geesaman (nominated for the Panagis working group), Alinka Lepine-Szily (liaison, nominated for C13, Physics Development), and Constantia Alexandrou (nominated for C20, Computational Physics).

### **8.11 C13: Physics for Development (Kennedy Reed)**

- 8.11.1 **C13 Meetings:** The C13 meeting was held August 29, 2009 at the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste, Italy.
- 8.11.2 **Computational Physics School Series in Africa:** C13 has been collaborating with C20 on organizing and co-sponsoring a series of computational physics workshops that will start in South Africa in 2010 and will subsequently be held every two years in a succession of African countries. C20 member Nithaya Chetty is the local organizer in South Africa and C13 member Sandro Scandolo is the other principal organizer. C13 helped organize an International Advisory Panel of recognized experts in materials science and computational physics from all parts of the world - including scientists from all regions of Africa. This Panel will help manage the series. This computational physics school series has been endorsed by C14 and C10, and a member of C3 serves on the Advisory Panel.
- 8.11.3 **Visiting Scientist Program:** At the request of the IUPAP Secretary General, C13 has been developing a proposal for the IUPAP Visiting Scientist Program that will help strengthen physics research and training in developing countries.
- 8.11.4 **Connection with International Commission on Medical Physics:** Commission 13 has been working with AC4 Chair Professor Nuesslin to develop a C13 linkage with the International Commission on Medical Physics. Ahmadou Wague from Senegal was appointed to serve as the C13 representative on AC4. Professor Wague has a long-standing interest in medical applications of physics, and also has good professional connections with the medical community in Senegal and other parts of Africa.
- 8.11.5 **Connection with C14:** C13 is interested in developing connections with the Commission on Physics Education. The C14 Chair accepted an invitation to our meeting at ICTP in August, where she made a presentation on PHYSWARE and participated in a session on low cost equipment for physics training in developing countries. Her participation at the meeting was found to be mutually beneficial and will lead to further interactions between C13 and C14.
- 8.11.6 **C13 Web Page:** The C13 web page is at C13 web page at <http://iupap-c13.ictp.it/>.

## 8.12 C14: Physics Education (Pratibha Jolly)

- 8.12.1 **Physware:** *A Collaborative Workshop on Low-cost Equipment and Appropriate Technologies that Promote Undergraduate Level, Hands-on Physics Education throughout the Developing World* was held at ICTP, Trieste, from 16 to 27 February 2009. It drew a record number of 200 applications and was attended by 35 participants from 27 developing countries. The success of the pilot workshop has motivated ICPE and ICTP to propose a *Physware* series of workshops for developing countries. A Memorandum of Understanding between IUPAP and ICTP is being tabled to formalize this cooperation.
- 8.12.2 **The ICPE 2009 Conference** on the theme *Development and Innovation in Physics Education* was organized from 18 to 23 October 2009 at Bangkok. The annual meeting was held on the sidelines. Special sessions were organized to present the ICPE 2008 medal to UNESCO and the ICPE 2009 medal to Ton Ellermeijer from AMSTEL Institute, The Netherlands. ICPE 2010 was to be organized at Mexico in August 2010. However, the organizer has indicated that he would prefer to organize the conference in August 2011. The commission would like to support the GIREP conference on the theme *Teaching and Learning Physics Today: Challenges? Benefits?* at Reims, Paris from August 2010. This would be a historic opportunity to celebrate 50 years of ICPE as the commission was conceptualized at the first ever International Physics Education Conference at UNESCO Paris in 1960 and constituted soon afterwards.
- 8.12.3 **The ICPE Newsletter** is being published regularly. The commission is currently printing 1000 copies of the book titled *Connecting Research in Physics Education with Teacher Education*, Volume II, edited by Elena Sassi and Matilde Vicentini. These will be distributed at the conferences and workshops to those from developing countries. *Physics Now* continues to receive a large number of hits. ICPE would like to bring another collation of articles contributed by all IUPAP commissions; the process would be initiated soon.

## 8.13 C15: Atomic, Molecular and Optical Physics (Burkhard Fricke)

8.13.1 The new C15 committee met for the first time in July 2009 at the XXVI International Conference on Photonic, Electronic and Atomic Collisions in Kalamazoo, Michigan, USA.

8.13.2 IUPAP Young Scientist Prize was awarded to John Morrisson

#### **8.14 C16: Plasma Physics (Padma Kant Shukla)**

8.14.1 IUPAP sponsored the 2008 International Congress on Plasma Physics (ICPP) held in Fukuoka, Japan, has brought the Conference Proceedings in the form of issues of the Journals of Plasma and Fusion Research, Vol. 4 (2009) and Plasma and Fusion Research Ser. Vol. 8 (2009), where the invited and contributed papers are published, respectively. A link to these Proceedings will be provided to interested reader via the website of C.16 Commission on Plasma Physics.

8.14.2 IUPAP sponsored the 2009 International Conference on Phenomena in Ionized Gases (2009 ICPIG) was held in Cancun, Mexico during the period 12-17 July 2009. The 2009 ICPIG covered a wide range of the fundamental and applied aspects of weakly and fully ionized plasmas, and emphasized inter-disciplinary research and fostered exchange between different plasma physics communities. The Conference was a great success. During the 2009 ICPIG the IUPAP Young Scientist Prize and Medal (YSPM) was awarded in a ceremony to Dr Timo Gans (The Queens University of Belfast, UK) in recognition of his outstanding contribution, at an early stage of his career, in developing very imaginative and highly sophisticated optical diagnostics which allowed deep understanding of the dynamics of low-temperature plasmas, which are widely used in microelectronics, photonics and many other emerging applications. A business meeting of C.16 was also held during the 2009 ICPIG.

8.14.3 The planning for organizing the 2010 International Congress on Plasma Physics (2010 ICPP) in Santiago (Chile) is underway. Commission will be on the lookout to ensure fair representation of women in the Local Organizing Committee. The IUPAP YSPM will be awarded in the area of high temperature plasma physics during the 2010 ICPP in August 2010. The C.16 chair is in the process of establishing a Prize Committee, and an announcement will be made for the 2010 IUPAP YSPM through the PlasmaNET and other media.

#### **8.15 C17: Quantum Electronics (K. Allan Shore)**

8.15.1 The activities of C17 have been hampered by the fact that its natural flagship conference (the OSA/IEEE International Quantum Electronics Conference) does not meet IUPAP criteria for support. In recent years C17 has sponsored few meetings and is perhaps alone amongst IUPAP Commissions in never having awarded a Young Scientist Prize. The latter being directly linked to the lack of a suitable forum in which to award such an honour.

8.15.2 The current C17 is in process of identifying a slate of conferences which will connect with the C17 community around the world.

8.15.3 One issue identified as a barrier to attracting conference sponsorship applications is the name of C17, Quantum Electronics, which has its roots in the earliest days of laser research. The name is still in currency but in many contexts has been modulated or replaced by alternative names, including Laser Physics and, in particular, Photonics. The latter terms are more regularly associated with meetings, conferences and journals.

8.15.4 C17 proposes that the name of the commission, i.e. Quantum Electronics, be renamed either **Quantum Electronics & Photonics** or **Laser Physics & Photonics**; or simply **Photonics**.

#### **8.15.5 Discussion:**

8.15.6 Katsu expressed concern on whether the change of name for a commission was not an issue for the General Assembly. Judy Franz felt that the by-laws were open to interpretation, and they seem to provide room for the C&CC meetings to take provisional decision which could later be ratified by the General Assembly. Judy Franz was also interested to know how "Quantum Information" will be included in the newly proposed commission nametag.

8.15.7 (Professor Kaminsky) felt that Quantum Electronics was now very much in the domain of Engineering.

8.15.8 The issue of name change could not be finalized; and, at the request of Katsu, it was shelved for tabling the following day after everyone has looked at the proposal in some detail.

**8.16 C18: Mathematical Physics (Not represented)**

**8.17 C19: Astrophysics (Virginia Trimble representing Maria Victoria Fonseca)**

8.17.1 The C19 Commission has supported since more than 10 years ago the series of conferences dubbed Texas Symposium on Relativistic Astrophysics. The 26th "Texas" Symposium on Relativistic Astrophysics, scheduled for December 2010 in Heidelberg, was selected for support at a level of 6000 Euros. Commission extends special thanks to C19's past secretary, Patricia Whitelock, for selecting the recipients from a larger group of applicants.

8.17.2 The following C19 commission members became associate and liaison members of the corresponding IUPAP commissions: Grazina Tautvaisiene C15 associate member and Bozena Czerny, a liaison member for C13.

8.17.3 The C19 commission continues having the 4 associate members from the past triennium, plus Bikash Sinha from C12.

8.17.4 A decision has been made concerning the young scientists prize given by C19 since 2006. For the next prize edition, C19 will give two 1000 euros prizes each for 2009 and 2010, both to be presented at the 2010 Texas symposium. Advertising the prizes is under way.

**8.17.5 Young Astrophysicist Prizes**

8.17.5.1 C19 (Astrophysics) of the International Union of Pure and Applied Physics, having presented its 2006 Young Scientists Prize to a European female astronomer, was most pleased to present its 2008 prize to a Japanese-American male astronomer. Eiichiro Komatsu gave an invited talk, on interpretation of the cosmic microwave background data from the WMAP satellite, at the December 2008 sponsored 25th "Texas" Symposium on Relativistic Astrophysics in Vancouver, BC. The two 'honourable mention' young astrophysicists were also there and gave presentations.

8.17.5.2 Commission 19 plans to present two young scientists' prizes in astrophysics for 2009 and 2010 at the 25th Texas Symposium on Relativistic Astrophysics in Heidelberg in December 2010. Each prize will consist of 1000 euros, a medal, and probably an invitation to speak at the conference.

8.17.5.3 The Selection Criteria are:

- Outstanding contributions by the individual.
- Fewer than 8 years of post-PhD research by December 2009 (for the 2009 prize) or by December 2010 (for the 2010 prize).
- Career Interruptions are allowed. A nomination package consists of A letter from the nominator outlining the reasons for the nomination, a complete CV and list of publications together with two supporting letters, at least one of which must come from someone not at the nominee's institution and not a mentor or significant collaborator.
- Self-nominations are not permitted, but a candidate could ask a mentor or colleague to provide a nomination. Nomination packages should be sent either electronically to the C19 chair, Maria Victoria Fonseca (fonseca@sagan.gae.ucm.es) or in hard copies to the selection committee chaired by Virginia Trimble (Physics Dept, Univ. of California, Irvine CA 92697, USA). All nominations should be received on or before 1 June 2010. The winners will be selected and notified over the next few weeks.

**8.18 C20: Computational Physics (James Gubernatis)**

- 8.18.1 C20's principal activities are the yearly endorsement of an international conference and the yearly awarding of a Young Scientist Prize.
- 8.18.2 For 2009, C20's meeting will be held in Kaohsiung, Taiwan, from December 16-19, and is being organized by Prof. James J. Y. Hsu of the National Cheng Kung University. Planned are sessions on quantum information science, condensed matter physics, nanoscience, plasma physics, soft matter, biophysics, statistical physics, and atomic and molecular orbital physics.
- 8.18.3 The C20 2009 prize was awarded to Dr. Amada Barnard of Australia for computational work on nanomaterials. She will receive her award at CCP2009.
- 8.18.4 The 2010 meeting will be held in Norway and will be organized by Prof. Alex Hansen of the Norwegian University of Science and Technology. Future meetings will be in the United States and Japan. In 2011, Dr. Malcolm Stocks (Oak Ridge National Laboratory) will be the organizer, and in 2012, Dr. Toshikazu Takada (RIKEN). On November 1, the commission will put out its call for the 2010 prize.
- 8.18.5 C20 is working with C13 to co-sponsor a series of computational physics schools in Africa. The 2010 school will be in South Africa. Prof. Nithaya Chetty (Pretoria, SA), C20 commission member and former head of the South African Physical Society and Dr. Sandro Scandolo (International Center for Theoretical Physics), C13 Commission member, have lead the initial efforts. Prof. Joubert (Witwatersrand, SA) is the local organizer. The chair of the series's International Advisory Panel is Prof. R. M. Martin (Illinois). The theme will be numerical methods for electronic structure calculations. C10 and C14 have endorsed this series.

#### **8.19 AC1: International Commission for Optics (Ari Friberg)**

- 8.19.1 The Commission held its annual Bureau (Commission) meeting on 6 October 2009, at the occasion of the ICO topical meeting on Emerging Trends and Novel Materials in Photonics (Delphi, Greece, 7-9 October 2009).
- 8.19.2 In 2009 the ICO participated in some 10 conferences and schools throughout the world. The 2009 ICO/ICTP Winter College dealt with Optics in Environmental Science.
- 8.19.3 The ICO has a Travelling Lecturer Program and traditionally it gives out annually three awards – ICO Prize, Galileo Galilei Awards, and ICO/ICTP Gallieno Denardo Award.
- 8.19.4 The first winner of the IUPAP Young Scientist Prize in Optics was selected in 2009. The next Bureau meeting will take place during the EOS annual meeting in Paris on 26-29 October 2010, where the ICO organizes an ICO/EOS topical meeting on Optics and Energy.
- 8.19.5 The ICO publishes four times a year a Newsletter. For further information and upcoming events, see the ICO website [www.ico-optics.org](http://www.ico-optics.org).

#### **8.20 AC2: International Commission on General Relativity and Gravity (Abhay Ashtekar)**

- 8.20.1 Commission AC2 has launched a new initiative to recognize outstanding new Ph.Ds in the field. It obtained sponsorship from *Springer* and the IOP journal *Classical and Quantum Gravity* for two thesis prizes which will be given at the Commission's primary, tri-annual conferences. The Commission has also brought closer its 'daughter', i.e. national and regional--- societies, including those in Australasia, China, India, Japan, Korea, several European countries and the US by encouraging joint activities and exchanges. Finally, the commission has upgraded its website, <http://grg.maths.qmul.ac.uk/grgsoc/>
- 8.20.2 The 12<sup>th</sup> Marcel Grossmann Meeting, the last conference supported by the Commission, took place in Paris at the UN headquarters in June. It had over 900 participants. For outreach, public lectures have been given during all the recent conferences that were supported by the commission, encouraging women speakers when possible. At the 8<sup>th</sup> Amaldi conference on gravitational waves in 2009, for example, the lecture was given by Jenna Levin of Columbia. The Commission also organizes satellite schools and workshops around its major conferences for the benefit of students and younger researchers. These have been held in particular, in South Africa, India, and Argentina in the past – and

two such events will be organized around Commission's main tri-annual conference in July 2010 in Mexico. The school will be supported by the Americas Program of the US National Science Foundation.

- 8.20.3 The intellectual reach of gravitational physics has increased very substantially in recent years, especially with the creation of laser interferometric gravitational wave observatories. There has been a flow of experts into the field from particles and fields, astrophysics, computational physics, and optics – and inter-disciplinary collaborations have begun to form also with the Pierre Auger cosmic ray observatory and the neutrino ICECUBE observatory. The commission hopes that PANAGIC and GWIC will create concrete plans to coordinate these distinct searches for the most energetic events in the cosmos.

## **8.21 AC3: International Commission on Acoustics (Samir Gerges)**

- 8.21.1 The ICA board elected at the ICA General Assembly in 2007 continues with the executive comprising Samir Gerges as President, Sonoko Kuwano as Vice President, Hugo Fastl as the Treasurer and Marion Burgess as Secretary General. The 2009 board meeting was well attended and the early start allowed for good discussion on many matters important to ICA at this time. In particular there was further consideration of the governance and options for changes to the structure of the board. A proposal for a revision to the board structure has been prepared and sent to the member societies for their comment with a view to modification and voting by the ICA membership at the next General Assembly in Sydney in 2010. The country membership of the ICA has not been increasing while it is clear that the interest in acoustics is expanding. The majority of the larger acoustical societies are members and more effort is being made by the President and board to encourage the smaller and less well established acoustics groups in developing countries.
- 8.21.2 The Board continues with its task of obtaining greater acknowledgement of the role of acoustics with a view to seeking full membership of ICSU. The inclusion of the following international affiliates has increased the strength of the board: European Acoustics Association (EAA), IberoAmerican Federation of Acoustics (FIA), International Institute of Noise Control Engineering (I-INCE), International Institute of Acoustics and Vibration (IIAV), Western Pacific Acoustics Commission (WESPAC) and the International Congress on Ultrasonics (ICU). The Board has set up an International Conference Coordination Committee with a view to encouraging improved coordination of these international activities.
- 8.21.3 The major activity for the ICA is the congress held every 3 years. In 2010 this will be held in Sydney Australia and we look forward to the assistance of IUTAM in promoting this important activity. In the current international economic environment it will be a challenge to ensure that this event is both scientifically and financially viable.
- 8.21.4 The ICA has provided support for a number of specialist symposia in 2008 and has offered support to a number of meetings in 2009 and a commitment for 2010. The call for applications for symposia support for 2010 has been sent out and selection will be made by the end of 2009.
- 8.21.5 The selection of the prestigious Early Career Award is in progress and the prizes will be awarded at the time of the ICA in Sydney in 2010, where over 24 ICA Young Scientist Awards will also be conferred.
- 8.21.6 The ICA acknowledges the ongoing collaboration with IUPAP, and is looking forward to strengthening this collaboration in the future and value the contribution from the IUPAP representative at Board Meetings. The ICA board is keen for the ICA to become a Union within ICSU and looks forward to the support from IUPAP in achieving this goal.

## **8.22 AC4: International Commission on Medical Physics**

- 8.22.1 The last meeting of AC-4/IComMP took place at the World Congress 2009, 7-12 September 2009 in Munich, Germany. Due to the new term of IOMP Officers membership of AC-4/IComMP is expected to be finalized by the end of November 2009.
- 8.22.2 IOMP Officers: The following members have been appointed as IOMP Officers: Fridtjof Nüsslin (President IOMP, IComMP/AC-4 Chair), Kin Yin Cheung (Vice-President IOMP), Barry Allen (Past-President IOMP), Madan Rehani (Secretary General IOMP), and Slavik Tabakov (Treasurer).

8.22.3 IOMP Committee Chairs: The following members were elected IOMP Committee Chairs: Maria do Carmo Lopes (Education & Training, ETC), Harald Paganetti (Science, SC), Raymond Wu (Professional, PRC), and William Hendee (Publication, PC).

8.22.4 **Associate Members from IUPAP Commissions:** The following members have been appointed as Associate members of AC-4: Jose Onuchic (C6, Biological Physics), Professor Ahmadou Wague (C13, Physics for Development: Universite Cheikh Anta Diop in Dakar, Senegal), Jolly Pratibha (C14, Physics Education)

#### 8.22.5 **Recent AC-4 Activities**

8.22.5.1 **World Congress September 2009, Munich: The** World Congresses on Medical Physics and Biomedical Engineering (WCs) are organised by IUPESM, the international umbrella organization of Medical Physicists and Biomedical Engineers, and normally organized by an individual national Organization. The WC-2009 attracted 3,300 delegates from around the world. The program of the congress covered the entire spectrum of life-sciences with involvement of physics and engineering. In addition special topics and workshops have been organized in order to build bridges between themes and to add comprehensive aspects to the matrix structure, for example sessions on Linking Proteomics and Genomics with Medical Physics, Linking Physiome with Patient Needs, Bridging Fundamental Research with Medical Physics, Medical Technology and Medical Engineering, and in case of Catastrophies, Patient Safety and Process Optimization. Furthermore, involvement of medical physics in developing countries was a special focus addressing the needs of dedicated technologies for health care systems. Programs for education and training have been discussed. Next World Congress will be held 2012 in Beijing.

8.22.5.2 **IOMP International Conferences on Medical Physics (ICMP):** To strengthen the field of medical physics, particularly in developing parts of the world, IOMP runs the regionally based international conferences of medical physics (ICMP) every three years, approximately halfway between World Congresses. These are organised by a National Organization for Medical Physics after an open selection procedure. According to the Council voting in September 2009 the Brazilian Association of Medical Physics will host the ICMP 2011 on April 17-20, 2011, at the Center of Events of the Pontifical Catholic University of Rio Grande do Sul in Porto Alegre, Brazil. An involvement of IUPAP is planned (e.g. a symposium jointly organized by AC-4 and C6, workshop on Development & Training Medical Physics in Latin America (involvement of AC-4, C13, C14). IUPAP Vice-President Marcia Barbosa from Porto Alegre will liaise with COC. IUPAP Young Scientists award will be conferred at the ICMP). AC-4 will apply for IUPAP funding to sponsor travel grants for young scientists.

8.22.5.3 **Scientific Database:** Work is well under way, under the auspices of the Scientific Committee, to establish a scientific database of medical physics reference materials, such as: calibration protocols, survey and monitoring techniques, technological and scientific leading edge developments, and relevant publications of general interest.

8.22.5.4 **Education and Training:** As part of the IOMP mission, a number of activities have been developed to improve education & training of medical physics in developing countries. IOMP maintains, on its website, a list of graduate programmes. The details supplied are entirely the responsibility of the institution providing the programme.

8.22.5.5 **EMITEL Project:** The international project EMITEL has developed an Encyclopaedia for Medical Physics with Multilingual Dictionary. IOMP was one of the project partners, the others were King's College London and King's College Hospital, University of Lund and Lund University Hospital, University of Florence, and the AM Studio, Bulgaria. EMITEL was financially supported by the EU Leonardo programme. Dr. Slavik Tabakov (former Chair of ETC and newly elected Treasurer) is the co-ordinator. The final report has been approved. The EMITEL web site ([www.emitel2.eu](http://www.emitel2.eu)) was officially launched at the opening of WC2009. The encyclopaedia is available free on the Internet and includes a Multilingual Dictionary of Terms, which cross-translates the 3000+ specific terms in any of its 25 languages. See [www.emitdictionary.co.uk](http://www.emitdictionary.co.uk). Each term is explained with an article (in English). Many articles include diagrams, images and tables. The overall volume of EMITEL is 2000+ pages.

8.22.5.6 **IUPAP Young Scientist Award:** The IOMP Awards & Honours Committee, applying the rules for electing the IUPAP Young Scientist Award, elected Dr Leif Schroeder, a Biomedical Physicist from

Germany, for his outstanding work on Biomedical Imaging. Dr Schroeder developed a Xenon biosensor MR- imaging method which can detect biosensor concentration less than 2 nM. This significantly increased sensitivity, based on a novel method which he named Hyper-CEST, will open up new applications in biomedical research as well as in clinical application.

***Meeting adjourned for the evening and resumed on Saturday 24 October 2009 at 09:00***

**9. Memorandum of Understanding – IUPAP and ICTP (C14)**

**9.1** The IUPAP-ICTP MOU draft enjoys the support of the new ICTP director, Prof Fernando Quevedo, who assures full commitment to support workshops together with joint collaborative efforts to secure funding.

**9.2** Sukekatsu Ushioda looked at the IUPAP – ICTP draft of the Memorandum of Understanding and was satisfied with the content.

**9.3** Prathiba Jolly to make final revisions of the memorandum which should then be signed.

**10. Review of business discussed on day one**

**10.1** Issues discussed the previous day were briefly reviewed.

**11. Reports from Working Groups (WGs)**

**11.1** Judy Franz emphasized the importance of the C&CC meetings regularly reviewing the activities of the WGs. Ineffective groups should be encouraged to improve their performance. However, should a Working Group become really inactive, ineffective or irrelevant, it should be terminated. At the same time new Working Groups should be initiated to address dynamic challenges arising out of the emerging fields. However, warning should be issued prior to termination.

**11.2 WG1: International Committee on Future of Accelerators (ICFA)**

**11.2.1** Created as early as 1976, ICFA remains one of the strongest ongoing working groups of the IUPAP, with its activities focussed on the “facilitation of international collaborations in the construction and use of accelerators for high energy physics”. It originally started as a subcommittee of C11.

**11.2.2** Patricia McBride pointed out that a lot of ICFA activities have in the past few years focussed on the Large Hardon Collider (LHC), and it is feasible that this focus might soon shift to the neutrino program.

**11.2.3** Dan Olof Riska mentioned that ICFA was extremely helpful in facilitating the detector collaboration when the LHC program commenced. A number of regional committees also exist that do similar work as ICFA. Within these committees, issues of superconductivity and/or room temperature technology can be contentious.

**11.3 WG7: International Committee on Ultrahigh Intensity Lasers (ICUIL)**

**11.3.1** Judy Franz pointed out that the previous council noted that for quite sometime this working group was moribund, with the previous General Assembly having received no report because the chair of the committee did not attend the 2005 General Assembly in Cape Town. The by-laws had to be changed and a new chair, Professor Kajima, a plasma physicist, was elected. Since then, the working group had become active.

**11.3.2** The meeting noted that a (long) report has been submitted by WG7 ( ICUIL).

**11.4 WG9: International Committee in Nuclear Physics (ICNP)**

**11.4.1** Dan Olof Riska is an ex-officio member of ICNP, which was formed by way of a General Assembly Resolution of 2005. According to Professor Riska, the working progress of the ICNP has been impressive despite the fact that the process is still underway to formalize its composition. Judy Franz commented that the ICNP has been a model working group for IUPAP.

11.4.2 In the newly formalized composition of the ICNP, the chairmanship will have to rotate. Nomination process is currently being formalized.

## **11.5 WG2: Working Group on Communication in Physics**

11.5.1 The Working Group on Communication in Physics held a meeting but a report has not been received.

**11.6** Marcia Barbosa inquired if the Working Groups were aware that they had to submit reports. In view of the fact that a number of working groups have not submitted their reports, a letter of reminder should be sent to all working groups indicating that they are each expected to submit a report of their activities.

## **12. Future Meeting Plans**

**12.1** The next C&CC meetings will be held on Friday 5 and Saturday 6 November 2010 in Delhi, India. It is Europe's turn to host the 2011 IUPAP General Assembly. At the last General Assembly in Japan, Vienna offered to host the 2011 GA. The date of the IUPAP GA should this time around not conflict with that of the ICSU GA.

## **13. New Developments:**

### **13.1 Consideration of new member countries**

13.1.1 More efforts should be channelled towards recruitment of new member states. Ukraine is still not a member. There are ongoing efforts (by C13) to establish contacts in Nigeria. Both Algeria and Nigeria are potential IUPAP members. Iran, Ecuador and Malaysia have expressed interest to join.

### **13.2 Visiting Scientist Programme**

13.2.1 The chair of C13, Kennedy Reed, tabled for discussion a draft proposal for the visiting scientist programme which will "support scientists at institutions in a developing country to invite experts visitors from other countries who will advise and work with the scientists and their students on programmes and projects that will advance the research and educational efforts in the developing country".

13.2.2 Meeting agreed that the visit should last a minimum duration of two weeks, but longer stays of up to three months will be encouraged.

13.2.3 Judy Franz suggested that since the programme was not included in the budget, its pilot phase should try two recipients, both coming from developed countries. Cases of recipients having to go to developed countries to derive similar benefits for the developing countries will be considered as the programme evolves.

13.2.4 The programme will present an administrative challenge. The IUPAP admin and secretariat together with expertise from C13 will jointly handle the administration of the visiting scientist programme.

13.2.5 For the pilot phase of the programme, a provision will be made of €5 000 within the budget to support two visiting scientists, each funded up to a maximum of €2 500.

13.2.6 The host institution must be located in an IUPAP member state, and the visiting scientist should also come from an IUPAP member state.

13.2.7 Kennedy Reed recommended that a special committee needs to be set up to review applications and to oversee the implementation of the programme. Such a committee should not be constituted of C13 members only. Virginia Trimble suggested that that it will be beneficial for such a committee to include a person who has been a visiting scientist to a developing country. Judy Franz suggested Burkhard Fricke should be a member of the committee. Other members can be co-opted by the C13 chair.

13.2.8 The draft proposal will be further edited by the C13 chair to incorporate suggested modifications and/or changes. A list of countries that qualify as developing countries will be supplied to Kennedy Reed.

### **13.3 ICSU Developments and Grants Programme**

13.3.1 A call for applications for the ICSU Grants programme was released on 21 September 2009, a copy of which was forwarded to commission chairs.

13.3.2 Robert Kirby Harris mentioned that the ICSU calls come out annually; and if there's a proposal, it can still be developed and submitted for funding for a potential €30 000. If the December 2009 deadline is missed, the proposal can still be submitted in the next call.

#### **13.4 Consideration of Possible New Commission (e.g Environment and Energy)**

13.4.1 Judy Franz suggested that for a new field, it is often better to start with a new working group instead of a full commission. This step ensures that large scope of ground work is covered before a commission is constituted. It will also assist if a study could be done to establish what the IUPAP should focus on before it establishes either the working group or the commission.

13.4.2 Samuel Bader felt that environment and energy were two different themes which should not be mixed in the same basket. He however also felt that the IUPAP as an international forum consisting of different countries was a perfect body through which special attention can be devoted to these two different themes. If nothing is done, we are left behind as other bodies are doing something.

13.4.3 Dan Olof Riska was involved before in a proposed EASAC (European Academies Science Advisory Council) Energy Committee, but when the committee first got together it was realized that it was far more important to first do a thorough survey of the market, and let the market facts help in defining the areas and issues to be focussed on.

13.4.4 Abhay Ashtekar suggested that a focussed group could be considered as a starting point.

13.4.5 Sukekatsu Ushioda highlighted that the overall discussion seemed to link up with the issue raised earlier by Burkhard Fricke in the two statements which he circulated before the meeting, and that in such a context the suggested commission, working group, or even focus group, should perhaps have its remit extended to include societal matters as highlighted on the two statements.

13.4.6 Burkhard Fricke mentioned that topical issues such as global warming, new sources of energy, etc, dominate the agenda of the International Academy Council, which gets contracts from UNESCO to conduct projects on a grand scale with a mandate from the office of the secretary general of the United Nations. It will be strategic to liaise with such a body to find out how IUPAP could assist with its expertise.

#### **13.5 General Consideration of other developments**

13.5.1 James Gubernatis mentioned that the African School has been proposed as a series. Kennedy Reed has also discussed this with the outgoing ICTP director Professor Katepalli Sreenivasan who fully endorsed the idea of a series. The current council will most probably recommend future funding of the biannual type D category, though this should not be regarded as a guarantee of funding.

#### **14. Any other business**

No other IUPAP-related business was discussed. Sukekatsu Ushioda thanked everyone for attending and actively participating in the C&CC meeting. He in particular expressed special thanks to Samuel Bader and Patricia McBride for hosting the C&CC meeting in Chicago.

*Meeting adjourned at 12:20 Friday 23 October 2009.*

## IUPAP BUDGET 2010

<b>INCOME</b>	<b>EUROS budgeted</b>
Membership Dues (Estimated)	€ 405,000.00
Bank Interest	€ 1,000.00
<b>TOTAL INCOME</b>	<b>€ 406,000.00</b>
<b>EXPENDITURES</b>	
Conferences	€ 156,000.00
Conference /travel Grants	€ 49,000.00
ICTP fir Publications for Developing Countries	€ 3,000.00
ICPE Newsletter	€ 2,000.00
Commissions (6k over 3years, but 8k for C13 and 7k for C14)	€ 23,000.00
Council and Commission Chairs Meetings	€ 48,000.00
IUPAP Young Scientist Prizes	€ 12,000.00
Working Groups ICFA Communications in Physics (3k) Women in Physics (17k) ICNP (2.5k) PANAGIC (2.5k) ICUIL (2k)	€ 35,000.00
Developing Countries Workshop	€ 31,500.00
Visiting Scientist Programme	€ 5,000.00
Newsletters/Reports (including General Report)	€ 1,000.00
Subscriptions ICSU ICSTI	€ 13,000.00 € 1,000.00
Secretariat London Japan	€ 31,000.00 € 5,000.00
2011 General Assembly Reserve	€ 15,000.00
Banking and Accounting	€ 3,000.00
Liability Insurance	€ 1,000.00
Contingency Fund	€ 7,000.00
<b>TOTAL EXPENDITURES</b>	<b>€ 441,500.00</b>
<b>Surplus/(Deficit) anticipated</b>	<b>-€ 35,500.00</b>