

# Minutes of the IUPAP Executive Council meeting 26 April 2015

Bruce McKellar

4 May 2015

## 1 Attendance

### Present

Bruce McKellar, President; Kennedy Reed, President - Designate; Cecilia Jarlskog, Past President; Kok Khoo Phua, Secretary General; Rudzani Nematudi, Associate Secretary General; Monica Pepe-Altarelli, Vice-President at Large; Vitaly Kveder, Vice-President at Large; Alex Hansen, Vice-President at Large; Wenlong Zhan, Vice-President at Large; John Saunders, Chair - C5 and Vice President; Alinka Lépine-Szily, Chair - C12 and Vice President; Toshiyuki Azuma, Chair - C15 and Vice President; Grazina Tautvaisiene, Chair - C19 and Vice President.

### 1.1 In attendance

Kwek Leong Chuan, Observer; Sun Han, IUPAP Secretariat; Maitri Bobba, IUPAP Secretariat.

### 1.2 Apologies

Raynien Kwo, Chair C10 and Vice President; Francis Allotey, Vice-President at Large; Lin-Ni Hau, Chair C16; Juan Fuster, Chair C11.

## 2 Agenda

The agenda of the meeting was

1. To consider recommendations made by the C&CC meeting and resolve on them

2. To consider future actions and assign responsibility for them

### 3 Resolutions from General Assembly

Council reviewed the resolutions of the 28th GA, available on the IUPAP web page. And resolved as follows:

#### 3.1 Resolution 6: IUPAP Associated Organisations

To implement **Resolution 6 IUPAP Associated Organisations** it was **decided** to form a committee, the members of which are K K Phua, Sandro Scandolo, Deb Kane, which will report to the October “meeting” on how to revise the statutes to include IUPAP Associated Organisations, on what we expect of them, and on what can they expect from us, and on possible possible organisations which could be invited to be IUPAP Associated Organisations.

#### 3.2 Resolution 9: IUPAP Prize for Outstanding Contributions to the Improvement of Physics Research and/or Education in one or more Developing Countries

Council considered the revised proposal *Proposed C13 Prize 2nd Revision 4-9-15.pdf*, (Appendix 1) and **resolved** that

With the change of the word “Prize” to “Medal”, to accept the proposal.

As Council has authority from the GA to decide this matter, the Prize can be made operational to be presented at GA 2017. Note that the IUPAP standard working definition of “developing” is to apply.

#### 3.3 Resolution 13: Advisory Working Group on Accelerator Physics

Council considered the report *Proposed IUPAP Commission on Accelerator Science* by Roy Rubinstein (Appendix 2) with his recommendations for the membership of the new IUPAP working group on Accelerator Science, recommended in that report. Council **resolved** that

1. That an interim working group on Accelerator Science be established
2. That the chairs of C10, C11, C12, C16, AC4, WG9 and WG7 to be asked to propose two people to Council who could serve on the interim working group.

3. That

- The Chair of the European Committee for Future Accelerators (ECFA) (Halina Abramowicz, halina.abramowicz@cern.ch)
- The Chair of the Asian Committee for Future Accelerators (ACFA) (Yifang Wang, yfwang@ihep.ac.cn)
- The Chair of the American Physical Society Division of Physics of Beams (Stuart Henderson, hendersons@anl.gov)
- The Chair of ICFA (Joachim Mnich, joachim.mnich@desy.de)

also be asked to propose a member of the interim working group.

4. Council will make the decision on membership, and that it will select fewer people than those proposed
5. The interim working group on Accelerator Science will recommend to Council the mandate of the IUPAP Working Group on Accelerator Science, and its initial membership.
6. Council noted that the interim working group should be conscious of the needs of accelerator physicists in drawing up the mandate of the working group, and that it should draw up the mandate to encourage co-operation with WG1 — ICFA, while avoiding duplication of the activities of the two working groups.
7. The IUPAP Working Group on Accelerator Science is expected to advise Council on the possible establishment of an IUPAP Commission on Accelerator Science

### 3.4 Recommendation 8: Advisory Working Group on Soft Matter

Council agreed that the process of forming the interim working group should continue. Chairs of relevant Commissions (C3, C6, C8, C10, C20, AC4) are to be asked to propose members for the advisory working group to the convenor, Dieter Richter. IUPAC should be asked to propose a member, given the importance of soft matter in Chemistry.

## 4 Vacancy in Commission C20

C20 has proposed that their vacancy be filled by **Marc Etienne Brachet** of France, who was the unsuccessful candidate in the ballot for membership of C20 at the 28th General Assembly. He has worked on direct numerical simulations of turbulent flows, numerical modelling of quantum fluids at nonzero temperatures, statistical mechanics and absolute equilibria of the truncated Euler and nonlinear Schrodinger equations. He obtained his PhD at Observatory of Nice, was a Postdoc at MIT (USA), and is presently working at the Ecole Normale Supérieure.

Marc Brachet has very broad interests in computational physics that cover theoretical physics (quantum fluids, statistical physics), applied math (singularities of Euler equation) and applied physics and engineering (mostly fluid dynamics). He has been involved as a consultant on a wide range of problems (management of nuclear wastes, cryogenic engines, energy storage). He has many international collaborations including those with India (IIS Bangalore) and NCAR (Boulder, USA).

Council **resolved** to appoint Marc Brachet as a member of C20

## 5 General procedure for filling vacancies on Commissions

Council agreed that, when a vacancy occurs on a Commission the relevant IUPAP member is to be asked to nominate a replacement to the Commission, which may consider other candidates from those not elected at the General Assembly. The Commission will recommend the new member to Council. The recommendation will be voted on by the Executive Council in an email ballot.

## 6 Associate members of Commissions

Council was noted that existing Associate members of Commissions in general have appointments from 2012 to 2015. This means that they will remain as Associate members until the end of 2015 unless replacements are appointed earlier.

On the recommendation of C4, Council agreed to appoint the following as Associate members of C4

Commission	Associate Member	Country	Field
C4	Steve Barwick	USA	neutrino astronomy
C4	Ilya Usoskin	Finland	Heliospheric physics
C4	Albert de Roeck	Belgium	Particle physics
C4	Laura Baudis	Switzerland	Dark Matter searches

## 7 Conferences Proposed for Endorsement

1. Applications have been received from AC3 for endorsement of ICA 2016, the 22nd International Congress on Acoustics to be held in Buenos Aires - Argentina beginning 5 Sept 2016, and ICA 2019, the 23rd International Congress on Acoustics to be held in Germany starting on 8 Sept 2019.

On the recommendation of Rudzani Nemetudi, the Associate Secretary General Council **resolved** to endorse ICA-2016 and ICA-2019.

2. Executive Council **delegates** to the Associate Secretary General the authority to endorse conferences in IUPAP series, to advise Council that he has endorsed the conference, and that he will write to the organisers advising them of this, and providing them with the IUPAP logo to be displayed on their website, after one week. During this period members of Council may call for a ballot. If a ballot is called for, the letter will not be sent to the conference organisers until the result is known. The ballot will be held without delay.
3. Council **agreed** that proposals for endorsement of Conferences which are not in an IUPAP Series will continue to be referred to Council with a recommendation from the Associate Secretary General. The Council discussion and resolution on the referral will occur without delay.

## 8 Financial Matters

### 8.1 Report on 2014 financial position

Council received and noted the report on the IUPAP financial position at the end of 2014 (Appendix 3)

### 8.2 Approved Budget 2015, Indicative budget 2016&2017

Council **approved** the revised 2015 budget, and noted the indicative budgets for 2016 and 2017 (Appendix 4).

Council noted that the 2017 budget shows a very small cumulative surplus. Unless the economic situation improves and the number of members paying dues is increased, careful control of spending will be necessary to avoid a deficit for the triennium.

### 8.3 Members with dues in arrears

Council **delegates** to C1: Commission on Policy and Finance the authority to negotiate with members to adjust dues where this will allow the member involved to remain in IUPAP, and will mean that IUPAP will continue receive some income from the member.

## 9 IUPAP internet

The Council congratulated the IUPAP Office in Singapore on the implementation of the webpage, and on the efficiency with which requested changes are made. Council noted

that the IUPAP webpage required improvement of both the content and the structure. The secretariat is to collect the comments and suggestions from the members of C&CC and to implement them as appropriate.

## 10 IUPAP Newsletter

The first of the newsletters was received. Council **agreed** that there would be 3 issues of the newsletter per year. Young scientist prize winners are to be featured. Commissions are requested to provide input to the newsletters.

## 11 Commission contributions towards the IUPAP Mission

Council noted the importance of IUPAP support for women physicists, young scientists and scientists from developing countries in achieving its mission.

Council charged Commission Chairs with the responsibility for ensuring that conference organisers complete reports. Conference organisers are to be told at the time of receiving conference support that they are to report data on participation of women, young scientists and international scientists, so that they can ensure that their registration procedure collects the required information. The office is to automate or otherwise assist with the extraction of data on participation of women for the gender champion.

## 12 ICSU Matters

- Council **appointed** Barbara Erasmus, the Treasurer of ICSU, and a former member of C12, as the IUPAP Interunion representative for ICSU for the period 2015-2017.
- Council noted that ICSU Grants for 2016 applications are expected to be called in May, with a closing date of 1 December. It is expected that the rules will be changed to require greater emphasis on collaboration, perhaps partnership, with other ICSU members and the ICSU Regional Offices. Council also noted that C13 and C20 have indicated an interest in making an application.

Council will determine future procedure when the guidelines are available.

## 13 Interunion Representatives

1. Council **tasked** the chairs of the Commissions and Working Groups to review the listing of Interunion representatives on the IUPAP webpage, to note which

interunion representatives are relevant to them, and to reporting to our October “meeting” on

- (a) Is it appropriate that we continue to have a representation on this body?
  - (b) Is it appropriate that the representative continue to act, or should a replacement be made?
  - (c) If the position continues how will they ensure that the IU representative reports to the 29th General Assembly?
2. Council **agreed** to appoint inter-union representatives as recommended by Commissions before the October meeting if so requested.

## 14 Bids to host GA 2017

Council noted that only one bid had been received in response to invitation to Members to submit expressions of interest in hosting the 2017 General Assembly.

Council **agreed** to issue a reminder to Liaisons, copied to members of C&CC, extending the deadline to 1 July, and then to hold discussions with those interested in hosting the 2017 General Assembly, and to report to the October “meeting”.

## 15 Other business

### 15.1 Position of Deputy Secretary General

— Noting that, as the Secretary-General was the Director of our host institution, and would not always be available to supervise the office, Council **resolved** to create the position of Deputy Secretary General for the period 2015-2017. and to invite Leong Chuan Kwek to fill it, on condition that this did not impose additional expenses on IUPAP.

### 15.2 Gender Champion

Council **resolved** to appoint Alinka Lépine-Szily as the IUPAP Gender Champion for 2015-2017.

### 15.3 History of IUPAP

Council noted that IUPAP was created in 1922, and will soon be 100 years old.

Council requested that Kennedy Reed consult with the officers, commission chairs and others and produce a preliminary report for the October “meeting”, advising Council on how to proceed to commemorate the centenary of IUPAP

## 16 Future meetings

### 16.1 October 2015

Council **agreed** that its next meeting in October will be conducted electronically, and will make decisions on *a)* associate members of Commissions, *b)* Supported Conferences 2016 *c)* endorsement of 2016 budget, *d)* Interunion representatives, *e)* location of C&CC 2016, *f)* location of 2017 GA, *g)* IUPAP Centenary, and *h)* other matters.

### 16.2 October-November 2016

Council **agreed** to invite members of Council and Commission Chairs to submit bids to host the 2016 meeting of Council and Commission Chairs. It is intended that the meeting be held in October or November, 2016.

*It was suggested that Vilnius, Lithuania or Valencia, Spain could host the next C&CC meeting. Prof Grazina Tautvaisiene and Juan Fuster would investigate and provide a proposal to the October meeting.*

## 17 Closing

Council thanked Fernando Quevedo, the Director of the Abdus Salam International Centre for Theoretical Physics, Trieste for generously hosting our meeting, and Sandro Scadolo for his assistance with the Organisation.

Council thanked Maitri Bobbo and Sun Han for their efficient organisation of the meeting, and their efficient work in the IUPAP Office.



## APPENDIX 1: Proposed C13 Prize 2nd Revision 4-9-15

### **Name of Award**

*International Union of Pure and Applied Physics Prize for Outstanding Contributions to the Enhancement of Physics in Developing Countries*

### **Purpose**

To promote and award excellence in the implementation of transformative initiatives that enhance the state of physics in one or more developing countries.

### **Prize**

IUPAP medal, certificate and €3000

The Prizewinner will receive the award during the convening of the IUPAP General Assembly, where the recipient will be invited to present a paper on the work upon which the Prize selection was made.

The C13 Commission will provide travel expenses for the recipient to attend the General Assembly meeting.

### **Frequency**

One Prize every three years

The C13 Commission will select the Prizewinner in the year before the convening of the General Assembly. Thus, the inaugural prize selection will occur in 2016.

### **Eligibility**

The recipient must have earned a postsecondary school degree in physics or a related discipline.

The recipient must be employed in a developing country.

Previous award recipients will not be eligible for another award.

### **Solicitations**

The C13 Commission will maintain an ongoing request for nominations for the Prize with an indication of the year in which the next Prize will be awarded.

The C13 Commission will advertise the Prize electronically on its Website (<http://iupap.org/commissions/c13-physics-for-development>) and elsewhere, such as through IUPAP and ICTP newsletters and publications.

### **Nomination Procedure**

Any physicist who is well acquainted with the work of the nominee can make a nomination for the Prize.

Self-nominations will not be considered.

***The deadline for nominations is March 1<sup>st</sup> of the year in which the C13 Commission selects the Prizewinner.***

The nomination package should include the following:

- a. Nomination letter
- b. Two additional letters of support
- c. Curriculum vitae of the nominee.

All letters should provide concrete examples of initiatives successfully undertaken by the nominee that have led to transformative enhancements in the state of physics in one or more developing countries. Of particular importance are relevant reports, publications and related news stories that provide strong support for the nomination.

The nomination letter should propose a citation for the award that consists of a single sentence that succinctly summarizes the achievements for which the award is to be made.

The author of a supporting letter should not be a nominator of someone else. At least one supporting letter must come from someone who is not at the nominee's institution.

The nominee's curriculum vitae should include an employment and educational history and lists of publications, scientific and outstanding service awards, and invited talks.

Nomination materials should be sent by electronic mail to the current C13 Commission Chair.

### **Selection Process**

The Selection Committee will consist of five (5) persons who are Members or Associate Members of the C13 Commission and may consult with appropriate external assessors.

The main criterion will be the identification of highly successful transformative initiatives conceived and implemented by the nominee that have enhanced the state of physics in one or more developing countries.

In the year of the Prize selection, the full C13 Commission will give the final approval of the award recipient at the annual C13 Commission meeting. The formal announcement of the Prize recipient will be made soon afterwards.

### **Budget**

The IUPAP administration will allocate funds for the C13 Prize.

13 March 2015.

## The Proposed IUPAP Commission on Accelerator Science

Roy Rubinstein  
Fermilab

### 1. Introduction

Discussions among accelerator scientists regarding a possible IUPAP Commission for their field have been ongoing for several years. In October 2014, the US Liaison Committee of IUPAP submitted a draft resolution (Attachment I) to the 2014 IUPAP General Assembly to form a new IUPAP Commission on Accelerator Science.

The resolution was discussed at the IUPAP General Assembly, held in Singapore on 5-7 November 2014. Several delegates (although not all) who commented on the proposal were very supportive. In the discussion, members of the IUPAP Executive Council noted that forming a new IUPAP Commission is very rare, but if there is strong support, it is sometimes preceded by the formation of an IUPAP Working Group. It was also noted that IUPAP already has a Working Group focused on accelerator science, namely its Working Group 1, the International Committee for Future Accelerators (ICFA).

This writer was asked by the General Assembly to see what consensus could be reached in the accelerator science community on a new IUPAP Working Group.

### 2. ICFA

ICFA was founded in 1976 under IUPAP Commission 11 (Particles and Fields) to promote international collaboration in all phases of the construction and exploitation of very high energy accelerators. For many years ICFA was IUPAP's only Working Group. With the encouragement of past IUPAP Presidents, it served as a model for new IUPAP Working Groups when these were formed in the 1990s and 2000s.

Although energy-frontier particle physics accelerators and their utilization have been the major focus of ICFA, it has also been active in other accelerator fields. ICFA has long-term panels of experts on several topics such as accelerator beam dynamics (including the beam dynamics of synchrotron light sources and high intensity lower-energy accelerators); advanced and novel accelerators (concentrating on wakefield particle acceleration); and a joint effort with IUPAP Working Group 9 (International Committee on Ultra Intense Lasers) to study laser acceleration of particles.

### 3. Ascertaining Community Views on a New Working Group

In early December 2014, this writer emailed (Attachment II) the following organizations asking for their views:

IUPAP:

C10 (Structure and Dynamics of Condensed Matter); C11 (Particles and Fields); C12 (Nuclear Physics); C16 (Plasma Physics); AC4 (International Commission on Medical Physics); WG1 (International Committee for Future Accelerators); WG7 (International Committee on Ultrahigh Intensity Lasers); WG9 (International Cooperation in Nuclear Physics).

Also: International Particle Accelerator Conference; American Physical Society, Division of Physics of Beams (DPB). In addition conversations on this topic were held with some prominent accelerator physicists in Illinois, USA.

Replies were received from C10, C11, C12, WG9, ACFA (Asian Committee on Future Accelerators), and DPB, either on behalf of those organizations or the personal views of the organization official replying; most were strongly supportive of a new IUPAP Working Group. There was also extensive discussion of the proposed Working Group at ICFA meetings in October 2014 and February 2015.

#### 4. Some Quotes from the Replies

##### **C12**

The IUPAP WG on Accelerator Science (AS) should be all encompassing and go much beyond what ICFA is doing for High energy physics. In principle it should be nearly orthogonal to ICFA since the major composition of ICFA is based upon the world large scale accelerator lab directors, while the new WG (eventually Commission) on AS should be formed based on a bottom up approach.

The WG on AS would touch fields like nuclear sciences, condensed matter, biology (XFEL, Synchrotron radiation, neutron facilities....), medical isotopes, medical imaging (PET, X-Rays etc), plasma sciences, Space irradiation, computing simulation tools etc etc.

There are also about 12,000 accelerators used in industry as well.

##### **ACFA**

In most of Asian countries, accelerator community is represented by photon science, not by HEP.

##### **WG9**

Enthusiasm for the idea from the HEP, ONP, and BES people at BNL who are involved in accelerator work at the RHIC / AGS complex, the new NSLS-II, and the HEP ATF

##### **DPB**

A new IUPAP Commission or Working Group is a good idea because it will strengthen the field of accelerator science in IUPAP; he did not realize that ICFA had an association with IUPAP. The feeling among many non-HEP accelerator scientists is that ICFA's primary focus is on the construction and strategy of HEP accelerators. To really broaden ICFA to encompass non-HEP accelerator interests would be a big culture change for ICFA.

#### 5. Summary

The accelerator field has changed in the past four decades since ICFA was formed in an era when the field was dominated by the needs of frontier particle physics. There are now over 10,000 accelerators worldwide, and only a handful of these are used for frontier particle physics; most are used in medicine, industry, and neutron sources and synchrotron light sources used significantly for biological and solid state physics research. It is accelerator scientists working in these new areas that would be represented by a new IUPAP Working Group

Also, ICFA realizes that for it to become a body representing all of accelerator science would mean losing its focus on frontier particle physics accelerators and the particle physics that is carried out using them; these accelerators still drive many of the advances in the accelerator field, and these advances subsequently are incorporated into the broader accelerator community.

It appears to this writer that the support for a new IUPAP Working Group on Accelerator Science is broad among the large non-particle physics accelerator community and that this physics community feels that it is not represented in IUPAP; it also feels that ICFA is too particle physics-centric to represent its interests.

## 6. Recommendations

This writer believes that IUPAP should allow the formation of a new IUPAP Working Group on Accelerator Science, subject to an appropriate mandate being produced. If it does come into existence, it should have a strong connection with ICFA, including representatives of each invited to meetings of the other. Since ICFA has sub-units which work on aspects of accelerator science broader than just frontier energy accelerators, there must be significant efforts made to avoid duplication of these existing activities.

## ATTACHMENT I

DRAFT RESOLUTION of the XXVIII<sup>th</sup> General Assembly of IUPAP  
to form a new IUPAP Commission on Accelerator Science. (presented  
by the United States Liaison Committee of IUPAP)

WHEREAS the science of accelerators is rich and challenging. Particle beams are many-body systems with non-isotropic, non-thermal distribution, exhibiting many collective instabilities and self-organizing phenomena when interacting with electromagnetic fields and plasmas. Accelerator Science uses a rich assortment of concepts, devices and materials to accelerate and diagnose beams. Accelerator Science impacts and advances many branches of science such as materials science, nuclear science, and elementary particle science, as well as commercial, medical and environmental applications, and

WHEREAS international collaboration is common in Accelerator Science, as is indicated by large international conferences (*e.g.* IPAC) and large and small projects (*e.g.* LHC, neutron and photon sources) worldwide, and

WHEREAS Accelerator Science is not currently represented in IUPAP as its own discipline. The C11 Commission on Particles and Fields' mission includes the support for the exchange of information on accelerators used in particle physics, and C11 has endorsed the annual International Particle Accelerator Conference series that was initiated by the international accelerator science community in 2010, and

WHEREAS the IUPAP working group, International Committee for Future Accelerators (ICFA), has served as a forum for accelerator facilities to work together to facilitate international collaborations in the construction and use of accelerators for high energy physics. The IUPAP working group (WG9) International Cooperation in Nuclear Physics (ICNP) maintains a compendium of Nuclear Physics facilities worldwide, and

WHEREAS the use of accelerators in research extends to many other fields and applications, it is time to acknowledge Accelerator Science as a cross cutting field of physics.

Therefore the XXVIII<sup>th</sup> General Assembly of IUPAP this VII<sup>th</sup> day of November, 2014, resolves to do the following:

1. Create a new IUPAP commission dedicated to Accelerator Science.
2. Set the mission of the IUPAP Accelerator Science Commission to promote the exchange of information and views among the members of the international scientific community in the general field of Accelerator Science including, but not limited to, the following:

- a. the theory and experiments concerned with the nature and properties of particle accelerators and beam physics;
- b. the improvement of international communications in Accelerator Science through the sponsorship of professional meetings;
- c. the future of accelerator facilities for various fields that benefit science and society;
- d. the industrial, medical, energy production and environmental applications of relevant accelerator technologies

## ATTACHMENT II

**From:** Roy Rubinstein

**Sent:** Tuesday, December 02, 2014 10:36 AM

**To:** 'y\_fujii@cross.or.jp'; 'hidesakai@riken.jp'; 'bob.bingham@stfc.ac.uk'; 'kycheung@hksh.com'; 'toshiki.tajima@physik.uni-muenchen.de'; 'rtribble@bnl.gov'; Stuart Henderson; Juan Fuster Verdu; Joachim Mnich; 'andrew@jlab.org'

**Cc:** Patty McBride; 'cecilia.jarlskog@matfys.lth.se'; 'bhjmckellar@mac.com'

**Subject:** IUPAP and accelerator science

To: IUPAP Commissions and Working Groups and other entities that may have an interest in accelerator science

Dear Colleague,

As you may know, at the recent IUPAP General Assembly (GA) a draft resolution was presented by the US IUPAP Liaison Committee to form a new IUPAP Commission on Accelerator Science (see attached). In the GA discussion, it was commented that forming a new IUPAP Commission is very rare, but if there is strong support, it is sometimes preceded by the formation of an IUPAP Working Group. It was also commented that IUPAP already has a Working Group concerned with accelerator science, namely its Working Group 1, the International Committee for Future Accelerators (ICFA)—see:

<http://www.fnal.gov/directorate/icfa/index.html>

At the GA, I was asked to see what consensus can be reached, so I'm writing to ask if you/your organization have any views on this topic; if so I would appreciate any comments by 10 January 2015. Also, could you let me know if you think a meeting of representatives of interested parties would be useful?

Best wishes,  
Roy Rubinstein.

This message sent to:

IUPAP

C10 (Structure and Dynamics of Condensed Matter)

C11 (Particles and Fields)

C12 (Nuclear Physics)

C16 (Plasma Physics)

AC4 (International Commission on Medical Physics)

WG1 (International Committee for Future Accelerators)

WG7 (International Committee on Ultrahigh Intensity Lasers)

WG9 (International Cooperation in Nuclear Physics)



International Particle Accelerator Conference  
American Physical Society, Division of Physics of Beams

# Appendix 3

IUPAP Financial Position 2012 -2014

	Budget			Actual			Estimate
	2012	2013	2014	2012	2013	2014 to 28/02/2015	2014
<b>INCOME</b>							
Dues	407,000	419,000	431,570	411,272	456,310	437,269	440,000
Bank Interest	1,000	1,000	500	2,949			
Other				600			
<b>TOTAL INCOME</b>	<b>408,000</b>	<b>420,000</b>	<b>432,070</b>	<b>414,822</b>	<b>456,310</b>	<b>437,269</b>	<b>440,000</b>
<b>EXPENDITURE</b>							
Conferences	148,000	104,500	104,500	145,417	114,500	114,000	114,500
Conference/travel grants	42,000	45,000	35,000	38,314	45,000	35,000	45,000
ICTP publications for developing countries	3,000	3,000		0	0	0	
ICPE News letter	3,000	3,000	3,000	0	0	0	
Commissions	30,000	23,000	23,000	7,712	30,109	3,103	23,000
C&CC meetings	70,000	35,000	45,000	166,664	30,450	29,931	45,000
Young scientist prizes	12,000	6,000	12,000	13,606	14,951	14,000	14,000
Working Groups	35,000	37,500	37,500	2,585	20,268	15,722	20,000
Developing Countries Workshop	21,000	21,000	21,000	21,000	21,000	12,000	21,000
New Programmes		7,000	7,000	3,709	3,763	3,763	3,763
Women in Physics conference			15,000		0	15,000	15,000
General Report/Newsletters	5,000	2,000	2,000	1,000	0		
ICSU	19,400	19,400	19,400	19,400	19,982	20,581	20,581
ICST	1,000	1,000	1,000	800	800	0	
Secretariat	50,000	52,800	57,600	54,286	46,838	50,400	60,000
President	5,000	5,000	5,000	267	5,708	762	5,000
GA			45,000		0	21,616	50,000
Banking and accounting	11,000	11,000	11,000	8,545	1,729	3,096	6,000
Liability Insurance	2,000	2,000	2,000		0	0	
Contingency	7,000	7,000	7,000		20	8,826	7,000
ICSU GA			4,500		0	853	4,500
Nomination Subcommittee			2,500		0	1,874	2,500
Other expenses					0		
<b>TOTAL EXPENDITURE</b>	<b>464,400</b>	<b>385,200</b>	<b>460,000</b>	<b>483,305</b>	<b>355,118</b>	<b>350,526</b>	<b>456,844</b>
<b>SURPLUS</b>	<b>-56,400</b>	<b>34,800</b>	<b>-27,930</b>	<b>-68,483</b>	<b>101,192</b>	<b>86,743</b>	<b>-16,844</b>
<b>CUMULATIVE SURPLUS</b>	<b>0</b>	<b>34,800</b>	<b>6,870</b>	<b>0</b>	<b>101,192</b>	<b>187,935</b>	<b>84,348</b>

### **Comments on the statement of financial position of IUPAP**

- 1 The Executive Council meeting of 2011 determined a budget for 2012-2014 which would have a deficit. The General Assembly of 2011 made decisions which reduced the income and increased the expenditure, increasing the budgeted deficit.
- 2 The Executive Council in October 2012 reacted to this likely large deficit for the triennium by reducing expenditure, principally for Conferences and for the Commissions. The Council also agreed that, if necessary, the deficit for 2012 would be covered by a transfer from the reserves, hence the 0 cumulative surplus shown in the 2012 budget. These provisions restored the operating budget to a small surplus at the end of 2014.
- 3 The administration vigorously encouraged members to pay their dues, and this has led to an income in excess of that budgeted. The budgeted income allowed for a larger level of non-payment than actually occurred
- 4 The increased income in 2012 and 2013 and less than budgeted expenditure in 2013, and present estimates of 2014 expenditure lead us to expect a significant surplus at the end of 2014. When returned to the reserve account, this will more than compensate for the sum transferred from the reserve to cover the 2012 deficit. The net return to the reserve fund is expected to be about 110000 EUR.
- 5 On C&CC and GA in 2014 our expenditure was much less than budgeted for, thanks to the very generous support of our hosts, the Institute for Advanced Studies of the Nanyang Technological University
- 6 The reserve fund at 1 January 2012 was 812284 EUR, and at 1 January 2015(allowing for debtors and creditors 2015) it was 1,007,499.99. This now represents more than twice expected annual income
- 7 One can argue about a sensible level for the reserve fund. I regard 1.5 times the annual income as a minimum, and would prefer the reserve to be at 2 times the annual income. In a survey of various similar organisations I have found that they regard 1.5 to 5 times the annual income as a minimum for their reserve funds. The reserve for 1/1/15 is 2.3 times the 2014 annual income
- 8 I wish to thank the Executive Council for taking action to reduce the expenditure, the Administration for taking action to increase the fraction of dues received, and the Institute for Advanced Studies of the Nanyang Technological University . Together these actions have brought us to the close of the 2014 financial year in a sound financial position.
- 9 Small variations may occur as income is received and payments made which relate to the 2014 financial year

Bruce McKellar 26 March 2015

Appendix 4

IUPAP 2015-2017 BUdget

	2014 Budget	2014 Actual 28/2/15	2015 Budget approved 2014	2015 Budget Revised	2016 Budget	2017 Budget
<b>INCOME</b>						
Dues	431570	437,269	444517	450387	463899	477816
Bank Interest	500					
Other						
<b>TOTAL INCOME</b>	432070	437,269	444517	450387	463899	477816
<b>EXPENDITURE</b>						
Conferences	104500	114,000	140000	140000	140000	140000
Conference/travel grants	35000	35,000	45000	45000	45000	45000
ICPE News letter	3000	0	3000	3000	3000	3000
Commissions	23000	3,103	30000	30000	30000	30000
C&CC meetings	45000	29,931	35000	35000	35000	35000
Young scientist prizes	12000	14,000	12000	22000	22000	22000
Working Groups	37500	15,722	35000	35000	35000	35000
Developing Countries Workshop	21000	12,000	21000	21000	21000	21000
New Programmes	7000	3,763	7000	7500	7500	7500
Women in Physics conference	15000	15,000				15000
General Report/Newsletters	2000		5000	5000	5000	5000
ICSU	19400	20,581	20600	20600	21218	21855
ICST		0				
Secretariat	1000		1000	1000	1000	1000
President	57600	50,400	48000	50000	45000	40000
GA	5000	762	5000	5000	5000	5000
Banking and accounting	45000	21,616				60000
Liability Insurance	11000	3,096	11000	11000	11000	11000
Contingency	2000	0	2000	2000	2000	2000
ICSU GA	7000	8,826	7000	7000	7000	7000
Nomination Subcommittee	4500	853				6000
Other expenses	2500	1,874				2500
<b>TOTAL EXPENDITURE</b>	460000	350,526	427600	440100	435718	514855
<b>SURPLUS</b>	-27930	86,743	16917	10287	28181	-37039
<b>CUMULATIVE SURPLUS</b>	#REF!	86,743	16917	10287	38468	1429

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### Notes on the budget

1 The total amount of 2015 dues billed is 526746, but because of the effects of the global financial crisis we do not expect to receive this amount. The sum now budgeted is based on recent payment history

2 For this triennium we are using an inflation rate of 3% for the fees.

3 This inflation rate allows us to enhance conference+ conference travel grants, but not to the 2012 level, and to restore the expenditure on commissions.

4 We budget annually over the triennium, and can move expenditure items between years in the triennium, but not outside this budget cycle.

5 Commissions receive 4090 EUR total over the 3 years

6 Working groups get 2500 EUR each, except for WG5, Women in Physics, which gets 17500 EUR

7 The cumulative surplus is moved to reserves after the 3 year period and restarts in 2015, and will be moved to reserves after 2017

8 The Secretariat fees are 2015: Singapore 45000, London 5000; 2016: Singapore 40000, London 5000; 2017 Singapore 40000

9 The 7500 for new programs is to cover the Advisory Working Groups on soft matter, on accelerator physics, and the new working group on measurement of G; 2500 EUR each.

10 5000 EUR pa has been allowed for Newsletters and reports, because we need to enhance our communications

11 Note that the 2017 budget shows a very small cumulative surplus. Unless the economic situation improves and payment of dues is increased, careful control of spending will be necessary to avoid a deficit for the triennium

12 Council should approve the revised 2015 budget, and regard the following years as indicative. Each year's budget is to be approved at the Council meeting in the previous year. We will review the 2016 budget by email in October.