

# Minutes

## 22nd General Assembly of IUPAP, Uppsala, Sweden, 18-21 September 1996

The 22nd General Assembly of IUPAP was held under the auspices of IUPAP and organized by the Swedish National Committee for Physics.

The President, Professor Y. Yamaguchi was in chair for all sessions of the General Assembly as well as the related Executive Council meeting, until the transfer of the presidency. The General Assembly was attended by 95 delegates, observers, and IUPAP Officials, with 27 countries represented (Appendix 1).

Academic sessions on the themes of radiation and society (marking the centennial of Becquerel's discovery of natural radioactivity) and computational physics were held in conjunction with the Assembly (Appendix 2).

The First Session (Wednesday, September 18, 1996, 09.30h)

### 1. Opening and Memorial Observance

The President opened the General Assembly and welcomed all participants to the meeting. He expressed the appreciation of IUPAP to the Swedish liaison committee and to the local organizing committee of G. Tibell and C. Ekström, and noted that the University of Uppsala was the oldest university in Scandinavia. Professor Tibell then welcomed the Assembly to the university on behalf of the local organizing committee and gave a brief historical sketch of Alfvén Hall in which the meetings were held.

Professor Yamaguchi requested that the delegates stand for a moment of silence remembering former officers of IUPAP who had passed away during the last triennium, viz., Sir Neville F. Mott, former president, Professor M. Kotani, former vice-president, Professor R. Kubo, former vice-president and former chair of the Commission on Statistical Mechanics, and Professor G. Wdowczyk who was former chair and secretary of the Cosmic Ray Commission.

### 2. Presidential Address

President Yamaguchi delivered the presidential address noting the changing circumstances in which IUPAP was operating and observing that it was now 74 years old. Transcript of his remarks appears as Appendix 3.

### 3. Adoption of the Agenda

After a brief discussion the agenda was adopted as circulated.

### 4. Minutes of the 21st General Assembly

The minutes of the 1993 General Assembly at Nara, Japan were unanimously approved as printed in the 1994 General Report.

### 5. Membership

5.1 The Secretary-General reported the following changes in the membership in IUPAP which were accepted by Council:

- the admission of Kenya in 1995 with one share;
- the membership of Thailand, granted observer status in 1995;
- a change in the membership of Cuba from the Cuba Academy of Sciences to the Cuba Physical Society;
- a request from Korea that its number of shares be increased from one to three from 1996;
- a request that observer status, as given by the new statutes (see Appendix 5.3), be given to the Society of African Physicists and Mathematicians.

It was proposed by Prof. Sette (Italy) that all of the above be supported by the General Assembly. This was agreed unanimously.

5.2 The Secretary-General reported that a number of countries had been approached regarding membership, viz., Belarus, Ukraine, Ghana, Honduras, Vietnam, Singapore.

5.3 The Secretary-General indicated that there has been some discussion regarding some members who wish to decrease the number of shares. The serious negative impact of such action on IUPAP was noted.

5.4 The Secretary-General reported that the membership of Nigeria has lapsed, effective January 1, 1997, for non-payment of dues, according to the Statutes.

5.5 The total membership of the Union now stands at 47 members, compared to 43 (+ 2 observers) at the 1993 General Assembly.

## **6. Report of Working Group on the Future Role and Future Structure of IUPAP**

The report from this working group (F. Pobell, P. Chaudhari and J. Nilsson) is given in Appendix 4.1. The Council considered this report at its meeting in Budapest, September 1995, and proposed the actions summarized in the letter from J. Nilsson dated 96-01-23 (Appendix 4.2).

The aims of the recommendations are to

- involve commissions more in the work of Council;
- involve the regional societies like EPS and AAPPS;
- relate more effectively to the international organizations such as OECD, ICTP, etc.;
- improve the emphasis on applied physics;
- improve the visibility of IUPAP.

The proposal

a) modified the number of votes in the General Assembly by providing one vote to the chair (or, in the absence of the chair, the secretary) of each commission, in order to improve the involvement of the commissions in the General Assembly;

b) replaced the eight vice-presidents with five vice-presidents chosen from amongst the chairs at a meeting held within one year of the General Assembly to elect the five. In this election consideration would be given to the balance of regions, fields, etc.;

c) proposed that this meeting would have the responsibility of developing an international program based on the directions of the General Assembly.

In the discussion Di Castro (Italy) observed that it was necessary to close the gap between the commissions and the scientific community. Martin (UK) observed that some of the affairs are not addressed necessarily within the commissions and there was virtue in say, 3 Vice-Presidents, not necessarily chosen from amongst the commissions, to deal with wider issues. He noted that the five vice-presidents as proposed already had significant administrative duties. Frauenfelder (USA) supported the proposal and noted that the chairs are close to the physics that is going on. Thewalt (Canada) supported the proposed changes, but commented that the voting procedure that gave voting rights to the commissions could be seen as removing connection those who had the right to vote and those who were responsible for paying. Second, he questioned whether there was a conflict of interest in the proposal in which the chairs vote on the slates of officers for the commissions. Nilsson pointed out that it is the General Assembly that votes the membership of the commissions. Several delegations expressed support for the proposal that five vice-presidents be chosen from amongst the chairs, while three vice-presidents should still be elected according to the old rule.

Wilkinson (UK) favoured improving contact between the commissions and the Council, but noted there were strong arguments to maintain the vice-presidents. Occasionally IUPAP embarks on an issue that requires leadership from the Council. The chairs have a specialized interest with their commissions and with related commissions, but it is desirable to have some presence in the Council not originating with the disciplines. On this account he proposed that the General Assembly should make a moderate approach and try five vice-presidents selected from the chairs and three vice-presidents selected as before. Then the success of this should be assessed.

Richter (USA) commented that these changes had been in the works for a long time and that it was a good proposal. The vice-presidents chosen from amongst the chairs were likely to be from developed countries. Representation from developing countries was absent; therefore it would be helpful to choose vice-presidents who would represent the less developed countries. Werle observed that, while some commissions are quite specialized, there are several that are much more General, namely, SUNAMCO, Education, Development, Computational Physics, and to a somewhat lesser extent, Mathematical Physics, Biological Physics and Astrophysics. This should be taken into account when implementing the proposal. Thomas (Australia) noted that one year after the General Assembly was a long time; one could have them elected by the General Assembly. Nunez-Lagos (Spain) noted that representatives of the commissions must represent all of the commissions. In this they would not be very different from the present vice-presidents. Chandrasekhar (India) noted that in many countries science is well developed, but the economy is not. Countries in this position should be appropriately represented in the Council.

Richter (USA) proposed that (1) five vice-presidents be elected from amongst the chairs of the commissions by the General Assembly on nomination by the Council, (2) three vice-presidents elected by the General Assembly on nomination by the Council with at least one from a less scientifically developed country, and (3) that the effectiveness of this be reviewed in 1999. This proposal led to the revised version of the resolution (Appendix 5.2).

At this point President Yamaguchi requested that discussion be suspended until discussion of item 20, Union Policy Matters and called on Professor Nilsson to review the election procedures.

## **7. Election Procedures**

Nilsson reviewed the procedures for elections to the Council as provided in the Statutes.

1) Nominations were invited by May 15. Nominations received were circulated to liaison committees as List A.

2) The Council has reviewed the nominations and prepared List B, now taking into account representation by the adhering bodies.

3) Comments from liaison committees and commissions regarding corrections to List B were invited by 6:00 pm today.

4) The corrections will be available tomorrow as List C.

5) An opportunity will be given to discuss the nominations for each commission.

6) An opportunity is then given to re-nominate. This requires a new nomination form that is supported by two different delegations, one of which must be the candidates country. The candidate must have already appeared in List A. If the candidate is not on List A, it must be put to the General Assembly as to whether or not to accept the nomination.

7) On Friday morning List B will be proposed and elections will be held where position are contested by secret ballot.

Professor Yamaguchi asked if this procedure was acceptable. It was adopted unanimously.

## **6. Report of Working Group on the Future Role and Future Structure of IUPAP (continued).**

The discussion resumed.

Nilsson observed that it would be difficult to have the General Assembly select the five vice-presidents from amongst the chairs because the General Assembly did not know as yet who the chairs would be. Second, it may be necessary to have time to prepare for a meaningful discussion on policy. Third, it would be beneficial to meet the new chairs in person before a selection of the five vice-presidents is made. Sette (Italy) proposed that, in order to start, the proposed scheme should be used, but in the future the election should be done by General Assembly. Yamaguchi noted that the General Assembly is the governing body of IUPAP and that the next General Assembly has the right to make further decisions.

It was moved (UK/USA) that the proposed document, with the addition of 3 vice-presidents voted according to the old scheme, be adopted. An amendment was then moved (Australia/Italy, Austria) that the election of the vice-presidents be by the General Assembly. The amendment was carried (54 in favour, 26 against).

The motion with the amendment was then put and carried (83 for, 6 against).

A procedural motion (Italy/USA) was made for the implementation of this arrangement, "that the Council and chairmen be instructed to elect five vice-presidents from among the Commission chairs at the meeting of the Council and the Commission chairs, held within a year of the 1996 General Assembly". The motion was carried (66 for, 13 against).

The session adjourned at 12.45h.

The Second Session (Thursday, September 19, 1996, 09.00h)

### **8. Statutes – Resolutions from the Council on a Revised Structure (Appendix 5)**

Nilsson commented on the proposed resolutions and noted that there was single description about what a member was (Appendix 5.3) and secondly that the proposed resolution (Appendix 5.4) allowed for reduced fees. The resolutions in Appendices 5.3 and 5.4 were passed unanimously.

Further discussion on these resolutions (Appendix 5.1 and 5.2) from Council was deferred to later in the schedule.

### **9. Discussion of Commission Reports**

The commission reports were published in IUPAP-32 "Reports from International Commissions and Working Groups of IUPAP and the Inter-Union Committees" and the supplement to IUPAP-32.

A variety of observations were made on the reports by representatives of the commissions. Petley, chair of C2, flagged the point that the names of the trans fermium elements had not yet been officially approved by IUPAC. A member of C10 expressed regret that C10 had not been able to meet as a complete commission during the triennium. It was noted that C11 and C12 were discussing world wide ongoing major projects through the International Committee on Future Accelerators and the host OECD Megascience Forum. President Yamaguchi urged commissions to consider similar planning issues and thereby enhance IUPAP's visibility. Di Castro (Italy) noted that in condensed matter, as in nuclear physics, it was necessary to form world wide collaborations for certain major projects and that IUPAP should have a presence in these discussions. Gyulai (Hungary) commented that C13 conferences on "Bridging the Gap" between science and industry had been a great success. He further indicated that the commission is very interested in electronic communication and in computational physics and the impact that these have on scientists in developing countries. Black (UK), chair of C14, drew attention to the research that is going on in physics education from elementary teachers teaching to university teaching. An example of this is given at the web site

<http://www.physics.umd.edu/ourgroups/ripe/>

Konuma (AAPPS) pointed out the work in UNESCO PAC (Physics Action Council), set up to study large facilities, telecommunications and education. Black commented that it was good to have a priority

stated on science education but noted that all of the science education people from UNESCO have disappeared and grants have gone; the funds have been delegated to regional offices and this provides no help in most cases.

It was noted by a member of C18 that the Weyl Medal had been deleted. Chavel (France) commended favourably on the improvement in communication between IUPAP and ICO. Bárány (Sweden) asked about the contact between commissions and suggested that there be a review of the structure of commissions and the inter-communication between them. Yamaguchi noted that this had been studied previously and found to be a difficult problem particularly, for example, in the case of condensed matter. Di Castro (Italy) commented that, although such a reorganization might be desirable, a reduction in the number of commissions is not easy. Nilsson noted that a review of the structure of commissions is regularly done prior to each General Assembly and is requested of the commissions as required by the resolution of the Munich General Assembly. Further, appointment of associate members is intended to improve the liaison between commissions.

President Yamaguchi requested that there be a change in the order of the agenda and that the Assembly go to item 14 in order to allow discussion of the nominations to commissions. This was agreed.

#### **14. Discussion of Nomination List C**

A detail discussion on the nominations for the commissions was held. The past practice of appointing two members from the US and two members from Russia to C11 was questioned. Stoicheff reminded the General Assembly that the rule to appoint only one member from each community to a commission had been passed by a large majority of the last General Assembly. It was agreed that three new nominations from India and one new nomination from Taipei be accepted.

The session adjourned.

The Third Session (Friday, September 20, 1996, 09.00h)

#### **10. Secretary General's Report**

Secretary General Heinicke reviewed the activities of the Council and reported that, since the Nara General Assembly, the Council had met in Brussels September, 1994 and Budapest, September 1995. He reported that the President had attended meetings of ICSU representing IUPAP, and stressed the importance of IUPAP having an improved relationship with other international scientific bodies. He reminded the General Assembly that it is important to receive fees from the liaison committees early in the year.

#### **11. Reports from Liaison Committees**

Gyulai (Hungary) reported that the Hungary Liaison Committee had hosted the Council meeting in 1994 and thereby had raised the visibility of IUPAP in Hungary. There were no further comments from other liaison committees.

#### **12. Reports from Inter-Union Committees**

These appear in the book of reports, IUPAP-32 and in the Supplement to IUPAP-32.

### **13. ICSU Matters**

President Yamaguchi reported that he had attended the ICSU meetings as the official representative of IUPAP and will be attending the ICSU meeting immediately following the General Assembly.

### **15. Report of the Commission on Finance**

Past President Ossipyan reported on the state of the finances and noted that expenditures in the current year were proceeding as planned. Audited statements for 1995 have been distributed. He noted that there was no increase in dues for 1997-99. The custom adopted by many countries of paying dues at the end of the year was not helpful in terms of cash flow. He requested that, if possible, liaison committee arrange the payment of dues to take place early in the year.

### **16. Annual Dues for the Years 1997-99**

Council recommended that the annual dues remain fixed at CHF (Swiss francs) 2500 per share for the years 1997-1999. It was moved (Austria/Canada) that this be approved. The motion was carried.

### **17. Council Resolutions on Commission Matters to be voted on by the General Assembly**

#### *17.1 The Commission on Acoustics – C7*

Kihlman (Sweden) outlined the proposal (Appendix 6.1) that C7 be reconstituted as an affiliated commission. He reviewed the background of C7 and stated that there was a consensus within the commission regarding the need for proposed change. The draft statutes for the proposed International Commission on Acoustics (ICA) had been formulated in consultation with the IUPAP Council.

Sette (Italy), a former member of the commission, expressed reservations regarding the wisdom of the move. He suggested it would decrease the presence of IUPAP and would lead to a complete disassociation from IUPAP in the course of time. Kihlman responded that there was a total consensus within the commission that it wished to remain within IUPAP and maintain its strong ties with IUPAP.

Chavel (France) indicated that although that the ICO existed independently of IUPAP, it was a young organization. Its history led to the creation of the status of affiliated commissions. Kihlman pointed out that the proposed structure would improve the direct contact between the commission and national acoustics societies. Further, the change in the financial arrangements, associated with the status of an affiliated commission, would better serve their needs in order to give service.

A procedural vote (Italy/Spain) to delay action on this resolution was defeated. The question on the resolution was then put and carried (61 yes, 16 no).

#### *17.2 The Commission on Atomic and Molecular Physics, C10, Change in Name and Mandate*

A change in name and a revised mandate had been requested by C10, in order better to reflect the nature of its subject area (Appendix 6.2). The resolution was supported unanimously.

#### *17.3 Formation of the Commission on Computational Physics*

The formation of a new Commission on Computational Physics was proposed (Appendix 6.3). Nadrchal (Hungary) pointed out that almost all national physical societies had a section on computational physics, with conferences being held widely. A steering committee had considered the best umbrella under which to hold such international conferences and had concluded that IUPAP was the first choice. Further the coordination with the research work and education were clear. Lindgård (Denmark) welcomed the idea of the formation of the new commission, but suggested that the technical aspect was somewhat too broad. An amendment (Denmark/UK) to remove reference to “programming and computing environments” from the draft mandate was carried. The resolution was carried.

#### *17.4 Proposed Commission on Mineral Physics*

Professor Werle reported that the resolution, passed at the Nara (1993) General Assembly, had been considered and that C9 and C10 had been approached. C9 had indicated that it could include mineral physics, if appropriate. Neither commission supported the formation of a new commission on mineral physics. The motion (Australia/Canada) that the report be accepted was passed.

At the request of the Assembly, discussion on items 18 and 19 was deferred in order to deal with the resolutions on Union Policy.

## **20. Union Policy Matters**

### *20.1 Resolution on Administration of the Union*

The resolution that had been discussed earlier (Appendix 5.2) was now put to the Assembly and carried.

### *20.2 Resolution on Voting in the General Assembly*

Bárány (Sweden) asked why the vice-president of each commission was not included in the list of eligible representatives of the commission. Nilsson responded that the chair and the secretaries were generally the most active persons on behalf of the commission. Nunez-Lagos (Spain) cautioned that commission representatives must be clearly aware that they are not representing their countries. Di Castro (Italy) remarked that he could not support the resolution because it would place the chairs in the position of assessing their own work. Black (UK) indicated that the proposal would make it more likely that chairs and secretaries would come to the General Assembly. He further objected to the suggestion that commission representatives might improperly favour a country when representing a commission. The vote was put on this resolution (Appendix 5.1) and carried.

### *20.3 Resolution on Major Facilities*

The IUPAP guidelines for the use of major physics user facilities has been circulated as News Bulletin 95-4. It is the result of wide circulation and discussion over an extended period and was brought to receive formal endorsement by the General Assembly. Richter (USA) commended that while this arose out of work of ICFA and was accepted in principle by every high energy facility in the world. Nevertheless it is applicable much more broadly, e.g., in condensed matter physics, astronomy, etc. Wilkinson (UK) suggested that the guidelines should be formulated somewhat more strongly and requested that the title be amended from “IUPAP Guidelines for the Use of Major Physics User



Facilities” to “[IUPAP Recommendations for the Use of Major Physics User Facilities](#)”. The amendment was accepted unanimously and the resolution was supported unanimously.

Further discussion of item 20 was suspended in order to present the final list of nominations of officers and permit voting to take place.

## **21. Presentation of Nomination list D**

The revised final nomination List D was presented to the General Assembly and certain corrections to the previous list were brought to attention of the Assembly. The additional nominations that were proposed were reviewed and it was agreed to accept all of the additional nominations.

## **22. Elections**

Voting on the membership of the commissions then took place and the meeting adjourned thereafter.

The Fourth Session ( Saturday, September 21, 1996, 09.00h)

The Secretary General announced that the results of the election were given in the List of Officers which was available. Also available was the summary of the financial statement for 1995. The meeting returned to the deferred items on the Agenda.

## **18. Commission Resolutions**

There were no further resolutions from commission, other than those detailed above.

## **19. Liaison Committee Resolutions**

### *19.1 Sweden – re Structure of IUPAP*

Bárány (Sweden) proposed that “A group should be formed at this General Assembly and should have as its task to review the whole structure of the IUPAP Commissions with the goal to minimize overlap in the fields of the Commissions and to maximize the linking of fields that are close to each other, and at the same time to take into account that physics is changing and that IUPAP should keep up with these changes”.

Richter (USA) observed that the principle was fine, but that a committee should not be named at the General Assembly. He suggested that it be referred to the Executive and the chairs. Nunez- Lagos (Spain) observed that it was difficult for commissions to deal with resolutions and suggested that the General Assembly should make the decisions. Black (UK) observed that there was General support for the idea, but no good idea about how to do it. Therefore he proposed, as an amendment, that the General Assembly ask the Executive Council to conduct this review. This was supported by Kummer (Austria) with the suggestion that the review also include the matter about elections for membership.

The amendment was carried, and the main (amended) resolution was carried unanimously.

## **20. Union Policy Matters (continued)**

#### *20.4 Working Group on Communication in Physics (WGCP)*

Sens (Switzerland, Chair of WGCP) presented the work of the Working Group in Communications in Physics and pointed out that the real problem in publication in physics is that it is in a state of crisis. The number of papers being submitted is increasing rapidly and cost of journals is also increasing rapidly. There are problems in maintaining standards, and in establishing proper achieving techniques. Electronic means are emerging that provide the means to solve the crisis, but we have not yet dealt with the problems of cost and problems of networking. Full discussion is given in the report of the WGCP in the booklet of Reports of International Commissions and Working Groups of IUPAP (IUPAP-32) for 1993-96.

In the subsequent discussion, Sens emphasized that we must limit the attention on the Internet and focus instead on the input end of the information that is available via the Internet. After refereeing and editing there must be appropriate provision for achieving and assessing the information. He pointed out that it is necessary to structure the literature so that results are available for the next 500 years. It is important to make it impossible to allow indexed literature to get lost. Following the recommendation of the Executive it was proposed by USA/Austria that the existing Working Group be augmented and that it continue to function as a working group so that it would have the required flexibility to address these problems. It was understood that this would mean that it would report to the Council and that the Council would be able to endorse its recommendations and provide authority to act as required. Nilsson noted that publication issues would need to be addressed first, and that communication issues could be explored separately as directed by the Council. This motion was carried.

#### *20.5 Centennial Celebrations Science 2000*

At the last General Assembly it was suggested that the year 2000 was an appropriate one to celebrate the advances of science. ICSU had been approached in taking a leading role. Plans are now underway to have large regional meetings to mark the millennium.

Vogt (Canada, Chair C12) reported that Celebration Science 2000 was being planned in Vancouver, Canada and would focus on the intellectual achievements of science. It would involve about ten thousand people. McKellar and Thomas (Australia) reported that similar plans were underway in Australia.

#### *20.6 Energy and the Environment*

Pobell pointed out that IUPAP had an excursion to the Forsmark Nuclear Power Station and that nuclear power was scheduled to be eliminated in Sweden in 2010 AD. He remarked that he did not want his children to say that he knew what would happen if this plan was followed, but did nothing. He called on IUPAP to take a clear stand on the issues of nuclear power, pollution and the inevitable environmental choices that are associated with energy sources. There were several strong statements of support for this position. It was agreed that the treatment of this issue should be referred to the Council.

### **23. Transfer of the Presidency**

President Yamaguchi expressed his appreciation of the support that President Designate Nilsson and the other members of Council had provided during his term as President. With these remarks he transferred the Presidency to Jan S. Nilsson, who accepted the task with expressions of optimism and confidence in the continuing role of IUPAP in the international physics community.

#### **24. Venue of the 1999 General Assembly**

Nilsson invited incoming President Designate B. Richter to report on plans for the 1999 General Assembly. The General Assembly will be held in Atlanta GA, March 17-20, 1999, and will be hosted by the American Physical Society, the US National Academy of Sciences and the US Liaison Committee. The Council meetings will precede the General Assembly, which will be held without academic sessions. Celebratory sessions will be held on March 20-21, with the meeting of the APS March 20-26. It is estimated that six to seven thousand people will attend. It was recognized that some scheduling problems would result from a meeting in the Spring, but that these would be solved.

#### **25. Other Business**

President Nilsson expressed the thanks of the General Assembly to Professor Yamaguchi for his work as President and commented on the way that the ties with external international bodies had been strengthened through his work. He then presented the traditional IUPAP cubes to members (or representatives of members) who had served on the Executive Council, or as Chairs of Commissions and who were now retiring. A list of the recipients is given in Appendix 7. Finally, he expressed the appreciation of the Assembly to Mrs C. Persson, who provided experienced office support for the Assembly, and to the local organizing committee of G. Tibell and C. Ekström.

#### **26. Adjournment of the 22nd General Assembly**

President Nilsson declared the meeting adjourned at 11.00h.

Appendices:

1. [List of Participants to the 22nd General Assembly](#)
2. [Speakers and titles of talks given in the scientific program](#)
3. [Presidential Address](#)
4. [Future Role and Future Structure of IUPAP](#)
5. [Resolutions from the Council, presented to the General Assembly, on a revised structure for IUPAP](#)
6. [Resolutions from the Council, Presented to the General Assembly, on Commission Matters](#)
7. [Retiring Members of Executive Council or Chairs of Commissions – Recipients of IUPAP Token](#)