



EPS COUNCIL 1984

A report from the recent Council meeting in Winterthur covering the activities of the European Physical Society, its Divisions, Advisory Committees and its Members.

The Council of EPS composed of delegates of each EPS group member (national societies mainly), delegates of the Individual Ordinary Members (see panel for new composition), the Chairman of Divisions with, in attendance, the Chairmen of the Advisory Committees and invited persons met in Winterthur (CH) from 29-30 March 1984. In the words of the retiring President, Professor J. Friedel, the site was in many ways ideal. Meetings took place in rooms inside the "Technorama" a permanent scientific and technical exhibition (funded by industry and the local authorities) recently opened on the outskirts of an "industrial" town that in its cleanliness and homeliness is itself a reminder that manufacture and quality of life need not be incompatible.

The President opened the meeting by expressing regret over the recent death of two founding members (see pages 14 and 15) — a sad reminder of the growing maturity of the Society which is now in its 15th year. He summarised the present state of EPS as satisfactory in the sense that we were not facing any crisis, but improvement had been slower than he would have liked and we should be more ambitious in the future.

Associate Members

A notable change in the balance of the Society had been the doubling of the number of Associate Members over the past two years. These now provided about one third of the membership income and it was in everyone's interest that they should become more involved

in the affairs of the Society. Prior to the Council meeting, delegates of the Associate Members had gathered for a Symposium on Novel Spectroscopy, and had subsequently discussed with the Executive Committee activities and goals for the future, wherein ACAPPI (the Advisory Committee on Applied Physics and Physics in Industry) will act as the logical channel. Both meetings were considered to have been highly successful and will certainly be repeated in the future.

Council heard a summary of the two main themes of the discussion — "Europeanism" and the "University-Industry Gap". Under both headings, mobility of people and information are key factors and a number of mechanisms are being studied to improve communication between our Associate Members and to involve them more in the working of the Society — in conference planning, education etc. These are for ACAPPI and the Executive Committee to work out. In future meetings of the Council, the Associate Members' own delegates will be present. Elections are now being held of four representatives — two for four years and two for two years so that in the steady state, elections of two delegates can be held every two years.

It should be noted that the majority of newly joined Associate Members are from France (and many pay more than the minimum fee of Sw.Fr. 1000.—) which indicates that with a more uniform representation, the number can be significantly increased in the future. Particularly pleasing was the beginning of a list of eastern European Associate Mem-

EPS Executive Committee for 1984/85

President:	G.H. Stafford, Oxford
Vice-President:	W. Buckel, Karlsruhe
Secretary:	W.J. Merz, Zurich
Vice-Secretary:	N. Kroo, Budapest
Treasurer:	D. Kuhn, Innsbruck
Vice-Treasurer:	G. Preparata, Bari
Members:	B. Dreyfus, Grenoble J. Kaczer, Prague E.W.A. Lingeman, Amsterdam O.V. Lounasmaa, Helsinki K.K. Rebane, Tallinn

bers including the latest member which hailed from Hungary.

External relations

A number of exchanges had taken place with the American Physical Society, the most visible result of which was the creation of the 4 d) category of EPS membership, open to members of the APS at a subscription rate only 25% higher than the 4 c) members (those

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who are members of a group member of EPS). The numbers in the 4 d) category are mounting steadily (and according to the subscription secretary they are good payers!). Another result is the reciprocity of rights to present papers at each other's conferences. This is of particular significance as APS requires that the presenter of a paper to its conferences is an APS member or is sponsored by an APS member. Only with EPS plasma physics conferences, must presenters be an IOM, a member of an EPS member group or an employee of an Associate Member, or be sponsored by one of these.

APS has made a number of concessions to EPS Individual Members regarding subscriptions to its publications and will be invited to cooperate in the symposium on joint facilities for physics research that will be held in London in association with the Council meeting in 1986 — the week beginning 21 March as will the Japanese. When delegates have been nominated by all the Divisions an international programme committee will be set up.

Relations with UNESCO were also close. UNESCO helps in the funding and distribution of the newsletter sponsored by the Advisory Committee on Education (*Europhysics Education News*) and gives assistance to enable committee members living in peripheral countries to attend meetings. The symposium organised in 1981 by the Physics and Society Committee in association with UNESCO and which recommended regional workshops and schools has generated a new cooperation between Spain and Portugal (to be reported in a later edition of *Europhysics News*).

Budapest Office

At its previous meeting, Council had authorised the Executive Committee to establish an office in Budapest once appropriate assurances had been received that the transfer of funds between eastern European countries could be arranged. This is complicated, but the Executive Committee was now ready to go ahead and the Budapest office will shortly come formally into being. Its existence it is hoped will serve to involve physicists from eastern European countries much more in EPS affairs and will also encourage more activities to be held in these countries.

Budapest will be much more than a post office and will bring an active help to the Secretariat in Geneva, notably in computerising and up-dating membership lists and providing despatch services. In terms of convertible currency,

CHANGE IN RULE 16 OF THE BY-LAWS

Consequent upon Council's decision,
RULE 16 of the BY-LAWS now reads:

Normally all nominations and elections to service on the Council shall be for a *four-year* term but one *quarter* of those members of the Council not serving on the Executive Committee nor as Divisional Chairmen shall retire each year. Council members being Chairmen of a Division continue to serve throughout their chairmanship.

Changes shown in italic.

therefore, the Society will have increased effort for a net saving of around Sw.Fr. 15000.—/a. The remainder of the expenses in Budapest will be paid for in non-convertible currency in which the EPS has both a steady income and significant reserves.

Finance

Without going into detail, the 1983 accounts show a surplus of about Sw.Fr. 70000.— of which the majority has been used to pay off our accumulated deficit and to set against amortizations. With a planned surplus of Sw.Fr. 45000.— in 1984, the end of year picture is less optimistic (notably because of the reduced contribution from SPIE) and the President warned that the healthy financial position could soon be eroded unless more effort was made to attract Individual and Associate Members. Moreover the Special Development Fund at present contained a mere Sw.Fr. 10000.— which would not go far in any new initiative.

Some concern was also expressed over the Young Physicists Fund which now was voluntary. Only the Condensed Matter Division had paid into the fund this year and the grants to students to enable them to attend the Sixth General Conference in Prague would result in the level of that fund dropping from its present Sw.Fr. 35000.— (equivalent) to less than half the amount. Real differences of emphasis can, however, be discerned between the Divisions. Whereas everyone is in accord with the principle of aiding younger physicists, some believe it to be necessary to put the accent on the specialist conferences whilst others see it as important to strengthen the collegiate aspect of the General Conference. The permanence of the dichotomy of view-point perhaps indicates the validity of both approaches.

One further financial matter concerned the rebate on conference fees to Individual Ordinary Members. This too has been voluntary in the past but Council was happy to endorse the Executive's

view that in future all EPS Approved Conferences (i.e. organised by the Divisions) must charge lower fees to IOMs, typically of about Sw.Fr. 40.—, depending on the meeting.

Space does not permit a comprehensive review of all the activities of the EPS and the following are just some of the further topics that stimulated discussions in Council.

Advisory Committees

Education — In line with current thinking in science administration circles in Europe, the Physics Education Committee is now transferring its attention from a European centre to a European *network* of people actively engaged on research into the teaching of physics. Such a venture should capture the interest of governments as well as physicists (and qualify for government support). The "Teaching Abroad" scheme has been pursued with a Polish lecturer at Lund, and the Chairman of the Committee now needs new proposals from visiting lecturers and host institutions.

Physics and Society — Two main themes of the Committee will be the public awareness of physics (a subject on

Delegates to Council of the Individual Ordinary Members.

The results of the postal election are that the nine representatives to Council of the Individual Ordinary Members are:

- J. Ernest, Marcoussis
 - * B. Feuerbacher, Cologne
 - W. Heine, Cambridge
 - F. Janouch, Stockholm
 - * F. Mezei, Budapest
 - T. Riste, Kjeller
 - * E. Skrzypczak, Warsaw
 - * M. Tosi, Trieste
 - * A. Wapstra, Amsterdam
- with as first alternate:
- L. Van Gerven, Leuven
 - * New members

which there will be a symposium in Prague) and the problem of physicists' employment — a follow-up to the 1981 symposium in Erice.

Publications — Whereas the *Europhysics Letters* project had been taking most attention, the problem of journal subscriptions in the poorer countries had also been pursued, notably in regard to Poland where the 1981 volumes were nearly all missing.

Divisions

The *Astronomy and Astrophysics Division* has been reflecting on the special position of astronomy and how it might be structured in the future (see page 8). Its objective is to form a European Astronomical Society which should then become a 4 b) group member of EPS in the same way as the Ampère Group. Members of the European Society could then join EPS as 4 c) Individual Members.

To facilitate this change, Council approved an ingenious interim arrangement whereby the larger (≥ 300) astronomical societies in Europe could apply to become recognised as Collaborating Societies. Their members could then join EPS as 4 d) members at the same rate as APS members (Sw.Fr. 50.—) instead of at the 4 a) rate of Sw.Fr. 120.— as at present.

Council approved changes in the statutes of the *Atomic and Molecular Physics Division* and the *Plasma Physics Division* to ensure greater continuity from one Board to the next. These changes reflect the Council's concern over continuity in its own affairs and has changed RULE 16 (see panel) to provide for delegates to serve for four-year terms instead of three-year.

The A. & M. Division is planning on holding a general conference (similar to the very successful Heidelberg conference in 1981) every four years when there will be no national meetings: the next is in Amsterdam in 1985. As it is so much more satisfactory to hold Board meetings at their general conference, Board members will in future be elected for 4 years. The Plasma Division's solution to a similar cycle is to permit the Chairman to serve a third three-year term (although not three terms as chairman).

Condensed Matter Division — Main news after the highly successful general conference at Den Haag is the formation of the Liquids Section which now has a provisional Board under the chairmanship of Professor S. Bratos of the Pierre et Marie Curie University in Paris. Its ses-

Nuclear Physicist

There is a vacancy for an experimental physicist to join the nuclear physics group at the Daresbury Laboratory, an establishment of the Science and Engineering Research Council situated in rural Cheshire which operates major national facilities for scientific research.

The group is involved in carrying out and supporting a research programme on the Nuclear Structure Facility (NSF) a large tandem accelerator which has recently been completed and which is operating at up to 20 MV on terminal.

The successful applicant will be required to liaise with university research teams using the NSF. Candidates will also be expected to collaborate in nuclear research programmes and to play an active role in initiating and developing new programmes. Other duties will involve work on the design and development of major equipment, through to commissioning, operation and maintenance. As a member of the in-house team of scientists he/she will be expected to provide expertise in the methods of experimental nuclear physics to aid and direct the technical and scientific support staff in operating the NSF and for diagnosing problems as they arise.

Applicants (male or female) should have a good honours degree (or equivalent qualification) in an appropriate discipline with a period of relevant post graduate experience. A PhD degree in nuclear physics and a period of post-doctoral experience in experimental nuclear research would be an advantage.

The appointment will be made in the grade of Higher Scientific Officer according to qualifications and experience, on a salary scale of £7,149 to £9,561 per annum. There is a non-contributory superannuation scheme, generous leave allowance and a flexible working hours scheme.

CLOSING DATE: 15th May 1984.

Further information may be obtained from Dr J. S. Lilley, telephone: (0925) 65000 Ext. 558.

Application forms may be obtained from and should be returned quoting reference number DL/839 to:

The Personnel Officer, Daresbury Laboratory, Science & Engineering Research Council, Daresbury, Warrington, Cheshire. WA4 4AD England.

Daresbury
SCIENCE & ENGINEERING
RESEARCH COUNCIL

EPS Lecturer 1984

The EPS Lecturer for 1984 is Professor P.T. Matthews FRS of the University of Cambridge. Well-known in the high energy and particle physics community for his original contributions to the subject and his skills as a lecturer, Professor Matthews will begin his European tour in Switzerland and will then move on to the Federal Republic of Germany and the Netherlands.

He will be presenting two lectures:

- 1) Electro-weak Interactions and Intermediate Vector Bosons
This will deal with the theoretical background to the experimental work now going on at CERN on the W^\pm and Z^0 particles and the implications for the LEP programme.
- 2) Stellar evolution — White Dwarfs and Black Holes
This will be a broad "popular" account of stellar evolution based on some simple notions from statistical mechanics and the four basic interactions.

PROGRAMME

Date	Location	Time	Lecture	Contact
30 April 1984	University of Geneva	1700	2	W.O. Amrein
2 May	Neuchâtel	1630	1	P. Huguenin
4 May	Bern	1630	2	P. Minkowski
14 May	Bochum	1715	2	J.S. Schilling
15 May	Cologne	1700	2	J. Hajdu
17 May	Amsterdam	1600	1	S.A. Wouthuysen
18 May	Amsterdam	1100	2	G. Massaro

sion in Den Haag attracted more than 100 participants. There is clearly great enthusiasm for this Section to which Council gave its formal approbation.

Optics/Quantum Electronics Divisions — Whereas the Q.E. Division has a long history in EPS, the Optics Division is very new and is currently feeling its way under the Chairmanship of Professor H. Tiziani. They come together in the ECOOSA meeting for example (1984, Amsterdam 9-12 October) and while the two Divisions are conscious of the need for close collaboration, they each have their own areas, with the Optics Division much more involved with engineering aspects.

The Q.E. Division in the mean time has been spreading its activities outside the conference field (which is the main pre-occupation of most Divisional Boards). It has been publishing *Who's Who in Quantum Electronics* for some years and the 5th edition (which is free to IOMs) will appear in the Summer. It is also planning to include news pages in appropriate journals so that non-EPS members, particularly in industry, are made aware of its activities. In addition, it is putting together safety rules on the use of lasers to help harmonise practices and legislation in different European countries. It has, moreover, announced its willingness to act as an independent expert group to advise organisations such as the European Communities — an action that could lead to a most important widening of the EPS's field of influence.

Europhysics Letters

Real progress has been made in the negotiations over the launching of a European general physics letters journal which would incorporate *Il Nuovo Cimento Lettere* and *Journal de Physique Lettres*, but these have taken longer than had been hoped and the first number is now planned for 1 January 1986. Only in the past few months were the discussions within the principal national societies completed as a result of which a number of specific provisions in the Copenhagen understanding had to be revised. However, it seemed at Wintertur that there was now substantial agreement on most aspects and that the essential features upon which other

member societies had been invited to express an intention to participate remained intact.

On the editorial side it is foreseen that under the guidance of the Editor-in-Chief there would be from 9-14 Co-editors who would look after different areas of physics and who would be responsible, on the basis of reports from referees they select (mainly from an established panel) for the acceptance or rejection of submitted papers. These would in the first place be sent to the staff editor installed at the Geneva office who would look after the logistics and subscriptions. The staff editor would be an aid also to the Executive Secretary who would in turn have management responsibility for the journal. Invitations to tender for the publishing operations will be sent out once the specification has been agreed and a provisional agreement had been concluded between the main contributing partners.

In addition to the editors indicated, there would also be a broadly-based group of Advisory Editors who would formulate general policy, advise on ap-

pointments and actively sponsor the journal in their area. In the setting up of all these bodies the Divisions must be strongly engaged to ensure that the best people are involved and to make clear that this is something that concerns the whole scientific life of EPS.

Prague

Apart from ribald comments on the desirability of booking accommodation for the 6th General Conference in pairs (see front page of March issue) there was general satisfaction expressed at the advanced state of preparations, the vigour of the programme, and the widespread interest shown — among industrial as much as academic physicists. Prague promises to be a stirring event both scientifically and socially, so that it was on an optimistic note that Council adjourned, having elected a new Executive Committee (see panel) and warmly applauded the efforts of J. Friedel during his two years as President and the work of the retiring members of the Executive Committee, Professors K.E. Ganzhorn and H. de Waard.

Letter to the Editor

This coming summer, many physicists will attend the 6th General Conference of the European Physical Society in Prague, and those who are Individual Ordinary Members will attend as well the General Meeting of our Society. Such meetings are of singular importance as they provide one of the rare occasions when members can discuss their physics and its culture.

But what do we mean when we use the word "culture"? Is it simply the acquisition of more and more esoteric data relating to purely physical phenomena? Few would accept such a narrow definition; the majority would regard our culture as being a complex quantity in which a sense of values must also play a role. And admitting that, we are forced to recognise the differentiation into things that are "good" and those that are "bad". Science cannot be considered *just* a body of knowledge, of specific skills, and of institutions where particular kinds of knowledge are concentrated and some skills well organized; for, in addition, the discussion of virtue and vice as "embodied" in its development should be regarded as an integral part. Lest the complex develop without this

discussion being even recognized as something essential, and lest the complex develop vice that becomes stronger than virtue...

To-day the basic threat to humanity is not coming from "West" nor from "East", nor is it coming from "North" nor from "South". It is coming from the increasing autonomy of a scientific culture which explicitly embodies knowledge but forgets about value. To be more concrete: I believe the present dangerous relation between East and West stems from the existence of nuclear armature and is aggravated by the present political relation — not the other way round! What is so disturbing is not the place of science and technology in the hands of politicians, but the functioning of politicians *under the umbrella* of science and technology. And with regard to the latter, EPS might constitute a forum for an opening debate on the matter.

What I propose is that an effort be made not to miss this opportunity.

J.W.R. Fennema
Hilversum, the Netherlands

The traditional Council lecture was this year given by R.P. van Staple of Eindhoven on "Nuclear Spin Imaging for Medical Applications". A summary will appear in a future issue of *Europhysics News*.