



## Budapest, Centre of Europe EPS Council, 27-28 March

As winter was transformed into Spring, physicists from 24 countries converged on Budapest for the meetings of the EPS Council, Executive Committee and various Advisory Committees. 50 delegates and officers of the Society sat round the Council table for the meetings on 27 and 28 March. Arrangements worked impeccably and the discussion both inside and outside the meetings were harmonious and fruitful.

Welcoming the participants, G. Marx, President of the 150 year old Eötvös Lorand Physical Society, spoke of the pleasure that a small country experiences in receiving the EPS. Physics in such a country cannot flourish in isolation, and international collaboration was a stark necessity. This took many forms and the present occasion was being used to have visitors give lectures in a number of local institutions. It was moreover, very good for morale to feel when organizing an EPS conference, that one was for a time the centre of Europe. To commemorate this meeting of Council, the medal of the Eötvös Lorand Physical Society was, at a later moment, presented to EPS by G. J. Csikai.

Prior to Council the Executive Committee had been received by Dr. Karoly Polinszky, Minister of Education and, on the eve of Council, a reception was given by the Federation of Technical and Scientific Societies together with the Department for Mathematics and Physics of the Hungarian Academy of Sciences.

### Physics in Hungary

An impression of the scope of physics in Hungary was given by three lectures presented at the end of the

first day's business. The first by A. Szalay showed the unexpected returns that can come from physics research, the lecturer tracing the steps that led from a search for uranium to the discovery of high concentrations in coal, through to an understanding of cation sorption and fixation in peat, and the development of a spray technique for compensating trace element deficiency in crops grown on peat soils. The second by P. Szeffalussy on dynamical critical phenomena, surveyed the elegance and rigours of theoretical analysis with particular reference to ferroelectric behaviour, while the third, by M. Jannossy, showed how, with modest equipment but much persistence and insight, the development of the hollow cathode laser had been brought to its present state, where a laser hand torch could soon be produced.

### In Council

Missing from the scene was the outgoing president, A. Zichichi, who was unfortunately confined to his bed with a heavy fever. His role was efficiently filled by the vice-president, S. Kapitza, taking over at the last moment.

It there seems to be a certain sameness in Council agendas (and, in consequence, Council reports) this reflects the consistency and logic of the Society's activities. It should not hide the very real progress that is being made in the new initiatives nor the solid body of work which is a permanent feature of the Society's life. Continuity was not to be mistaken for inertia and more than one chairman of an Advisory Committee urged National Societies in particular, to see that their representatives came to

meetings fully briefed and ready to give their weight to the day - to - day business that has to be done.

ACAPPI, for example, maintains a permanent watch on the interests of applied physics and is much concerned with seeing these are not lost in the more glamorous advances of pure research. To see this firmly anchored in the programme of EPS, ACAPPI has proposed that a prize be awarded regularly for outstanding contributions to physics in industry — a proposal that will be pursued.

### Conferences

One of the most satisfying achievements of the Society is the degree to which the international conferences organized by the various Divisions have become an accepted feature of European scientific life. One of the more striking illustrations of this was the nomination of the Quantum Electronics Division as the advisory programme committee for Europe for the 11th International Quantum Electronics Conference to be held in June in Boston. The up-shot has been that a higher than average proportion of papers proposed by Europe for this conference has been accepted, and the next conference in the series will be organized by the Division. In similar vein in plasma physics, the European

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Fusion Conference was now an established event; arrangements for the next to take place in Moscow in September 1981 were proceeding.

So far in 1980, nine EPS organized conferences appeared in the international calendar (including one school) plus 27 sponsored conferences with two pending. A poster had been prepared listing EPS conferences and had been distributed to institutions throughout Europe. (Further copies may be obtained from the Secretariat.)

Particularly pleasing also was the fact that all EPS organized conferences in 1980 would feature in the *Europhysics Conference Abstracts Series*. Abstracts for these conferences will be prepared in a standard format and bound in volumes — one volume for each conference. The relevant volume forms part of the working documents of the conference and the complete Series is sold as a unit to subscribers.

A somewhat uncertain adoption of the scheme in the past had resulted in limited sales to libraries, whereas institutions can now subscribe to the *Europhysics Conference Abstracts Series* in the knowledge that they are receiving abstracts of all the top conferences held in Europe.

#### **Europhysics News**

*Europhysics News* is not lagging in its efforts to improve the completeness of its service. Following agreement that all "green" issues in 1980 will be of a minimum of 12 pages, the Executive Committee and Council have approved the proposal that we change to a new and cheaper (though not poorer) printing process. From part of the savings we shall publish from the beginning of 1981, eleven issues per year, implying separate January and February issues. The change has an important consequence for National Societies as, for the 1981 volume, the Society will be able to offer the publication at a price reduced by approx. 15% compared with 1980. Should other National Societies be encouraged to subscribe, the price will be lower still — 40 cts a copy, we consider to be rather reasonable.

#### **Teaching Abroad**

Great efforts are being made to ensure that the Lecturer Exchange Scheme should get under way in September. Discussions at many levels in Europe that have followed the original proposals, have indicated that the placing of lecturers should be treated individually, without regard to any immediate interchange of staff. Also

no insistence should be placed on the visitor giving his course within the established curriculum, provided always that the lecturer has an acknowledged skill in teaching. Judging this does however raise problems. As one participant remarked to general applause — all lecturers are deemed to have good teaching ability, but the student may have other views; he was speaking as a parent!

Applications from the first lecturers who could launch the Scheme are now being processed and in the light of the new flexibility that has been introduced into the Scheme, the Secretariat looks forward to receiving an increasing flow of enquiries. In the first instance these may well come from departmental heads considering proposing a staff member, too modest to apply himself.

#### **5th General Conference**

Currently, all Advisory Committees and Divisions are concerned with the programme for the Istanbul conference which is being elaborated under the chairmanship of E. Matthias. (*Europhysics News* will publish the first bulletin of the Conference, fixed for 7-11 September, 1981, with the May issue.)

An integral aspect of this conference is the support given to young physicists to enable them to attend. Funds for this in EPS are derived from the fee levied on EPS Conferences, equal to one unit fee per participant, or 20% of the registration fee, whichever is the less.

A number of National Societies were engaged on raising funds to help young physicists from their own country to go to Istanbul, whereas the Turkish authorities, in addition to providing substantial support for the conference facilities, would be subventioning a significant number of young physicists in Turkey.

While Istanbul will be a growing preoccupation of the Society sight should not be lost of the other conferences and meetings leading up to it. All the Divisions have their own programmes and the Physics and Society Committee is also planning two seminars, one in 1980 in either Erice or Trieste and the other in Erice in 1981. The first will deal with "Education problems in physics for the developing countries" and the second with "The employment of young physicists. A comparative study of the job situation in Europe". National Societies are being urged to see that physicists from their regions are adequately represented in both. The Committee's proposal to organize a workshop in

Turkey on the problems of physics in the less advanced parts of Europe was also warmly received.

#### **European Journal of Physics**

Physics teaching and the optimum rôle for physics in educational systems is evidently in the thoughts of many people, so it is with some confidence that the Society can look forward to the launch in June of its first learned journal that is published by The Institute of Physics. In the words of the previous Treasurer and our new President, a subscription to the *European Journal of Physics* should be a must for every University physics department in Europe. To quote the prospectus that is currently being distributed by the I.o.P., the rôle of the new journal is "the exchange of ideas on physics as it is taught in universities and other institutes of higher education. Its function is to communicate to its readers the ideas of those whose business it is to teach, and to provide a forum for the discussion of new, and possibly controversial, ideas on well established topics in physics".

The editor, G.W. Series, had previously reported to the Executive Committee the healthy state of contributions; if subscriptions can match these, the journal may prove to be a financial asset to the Society sooner than was previously forecast. For the first year at least, the liabilities of EPS are covered by the generous gifts from the Belgian Ministry of Education and the Nuovo Foundation in Denmark. If larger, and more wealthy, countries could make similar guarantees, the financial worries of EPS could be eased.

#### **Finance**

The finances of EPS are sound but there is little margin for error. In fact, in 1980, a small deficit was made on the trading account and while the increase in the unit fee will redress the situation in 1981, there will be little surplus for new initiatives. We are referring here to the convertible currency account only. This places emphasis again on getting value from the non-convertible accounts. It was, therefore, pleasing to hear from Poland that the authorities had agreed that non-convertible currency held there in the name of EPS could be used to cover expenses connected with:

1. the organization of scientific meetings,
2. the stay in Poland of persons who are EPS representatives,
3. publishing of proceedings and purchasing Polish publications.

Dr. Miklos Ajtai (left), President of the Federation of Technical and Scientific Societies, with Prof. George Marx (centre), President of the Eötvös Roland Physical Society, and Prof. Sergei Kapitza, Vice-President of EPS. In the background can be seen Mrs. Edit Nagy, Secretary of the Hungarian society and responsible for the detailed organization of the meetings.



Authorization was also given for the reimbursement of expenses incurred for EPS by members, and for the payment of conference fees to be made in Geneva. The precedent established by Poland it is hoped will inspire other countries to follow the same line.

Equally the announcement that the Academy of Science in the USSR was exploring the possibility of opening a non-convertible account in the name of EPS for Individual Ordinary Members of the USSR was very welcome. The Academy's contribution is paid in hard currency, but the opening of non-convertible facilities would enable the number of I.O.M.s in the Soviet Union to be materially increased.

#### Individual Ordinary Members

It was indeed rather disturbing to hear of the number of accepted I.O.M.s who fail to get round to paying their subscriptions. It no doubt seems more difficult to pay a subscription abroad (although in most western European countries it is not difficult at all) and the Society is loth to strike a non-payer off its books unless it is clear that the member wishes to resign. Efforts are being made to simplify payment procedures but, in the mean time, the non-payers are urged to get in touch with the Secretariat and explain their problem, or state their wish to resign, so that there is no misunderstanding.

I.O.M.s are energetically represented in Council and their views and concerns were presented with vigour by their delegates. Prior to Council, a letter had been received by the Executive Committee from C. Hilsun, a delegate of the Individual Ordinary Members, asking for clarification of reports that had been published in the press that Professor A.D. Sakharov had been deprived of his scientific contacts and prevented from practising his profession as a physicist.

A delegate from the Soviet Union made a statement informing Coun-

cil that the Academy of Science is taking steps to ensure that Academician Sakharov is in a position to continue his work in collaboration with his colleagues in the Lebedev Physical Institute of which he is a staff member, and he is free to publish his scientific work. He is residing in Gorki which is one of the largest industrial and cultural centres in the USSR.

Hilsun thanked the delegation for its statement which somewhat reduced his concern. However, he felt bound to point out that restrictions on the freedom of Sakharov to leave Gorki would have a detrimental effect on his research. He hoped, therefore, that the scientific community would continue to press for these restrictions to be relaxed.

#### Proliferation

The large number of small circulation physics journals in Europe much concerns the Publications Committee which has been steadily working towards an improvement in the situation along two distinct lines. Soon after the creation of the Society, the Europhysics emblem was devised and awarded to journals satisfying a set of qualifications that should ensure their standard and internationalism. The list which originally covered general journals only, was extended to specialist and review journals but was closed when the number reached 36. All the journals are now being reviewed, to take account of changes in editorial policy, creation of sections etc. and the majority should know by the early Summer, of the Executive Committee's decision regarding their continued rights to use the emblem.

The second activity is a more fundamental rationalization of the journals in Europe by restructuring, with the collaboration of the publishers, the present range. Basic to the policy are the following principles:

a) EPS seeks to maximize the interests of authors and readers,

b) the commercial interests of publishers are to be protected,

c) no publisher has an *a priori* right over other publishers in the same field.

EPS is currently engaged on a scientific examination of the whole field of physics, supported by bibliometric analyses, and data from information retrieval centres, with a view to establishing a publications model that can be compared with the existing state. The complete operation will take time, but progress is being made.

Another form of proliferation concerns international organizations as such. EPS is therefore keen to see that cooperation is established with bodies like UNESCO and the European Science Foundation. Simultaneously it keeps a watching eye on the scientific scene and has noted the untidy situation in optics. Talks will be held aimed at establishing a common policy with the European Photonics Association and the European Commission for Optics.

#### People

After Council had elected a new Executive Committee (see list on p. 12) tribute was paid to the dynamic personality of our past President, Antonino Zichichi, which had made such an impact on the Society these past two years. Council also sent a message expressing its regret at his illness and enforced absence from Budapest. (*Europhysics News* will be presenting his successor, Alan Mackintosh, in the May issue.) Kapitza in the name of the President also thanked A. Lösche of Leipzig, who had completed five years in office, for his services to the Society.

And finally, two former Secretaries, whose efforts in the first part of the seventies were determinant in putting EPS back on a firm basis, were honoured by being unanimously elected Fellows of the Society. The men so recognized are:

Marcel Guenin of Geneva and J.J. Went of Arnhem.