

Physics Conferences in Europe :

on the activity of the EPS Conference Committee

Conferences play an active and important role in the life of the professional physicist. They are one of the means of exchanging direct information, of reviewing new and old subjects, of giving the latest results, of becoming acquainted with new and stimulating developments.

Of course, physics conferences existed in Europe a long time before the EPS started its activity, and before the Conference Committee began its work under the chairmanship of G.H. Stafford, at the beginning of 1969. It was felt, however, that EPS should play a role in this matter. The EPS Divisions were starting to organize conferences by themselves or to take over series of conferences already existing. EPS was preparing general conferences, one every third year. It was clear that conferences not organized by EPS would need sponsorship and possibly some kind of help.

The Advisory Committee on Conferences (CC) reflected from the beginning the dual organization of EPS: representatives from each Division and representatives from the larger National Societies and also from smaller countries in order to ensure a good geographical coverage.

Rules were needed and the CC had to start by recommending a policy to the Executive Committee; but before establishing rules, it was necessary, as in all natural sciences, to sort out the various types of existing conferences and possibly even to devise new types. It was found that conferences might be divided into: the EPS General Conferences; General Divisional Conferences, which cover a complete branch of physics (i.e. the whole of nuclear physics, the whole of condensed matter, etc.); Topical Conferences covering a more limited subject — these represent the most wide-spread type of conferences; Summer Schools which have an essentially pedagogic character but which often also have a substantial conference component.

A new type of conference introduced in Europe was the Europhysics Study Conference. Such conferences, known as Gordon Conferences, already existed in the USA. Of course, the Gordon type of organization and financing is not easy to reproduce in Europe, without the help of a Maecenas. It was felt nevertheless that this type of conference, with a limited attendance, much time devoted to informal discussions, and no proceedings, was a use-

ful and stimulating type of conference. The first conferences of this sort were organized in the field of condensed matter.

Another concern was the relationship with the large international organizations: the IUPAP (International Union of Pure and Applied Physics), the IAU (International Union of Astronomy) and the IUC (International Union of Crystallography). These organizations are sponsoring conferences all over the world and many of them of course are in Europe. To avoid destructive interference, it was decided to have representatives of these Unions on the Conference Committee; they have proved to be very helpful and efficient.

A special meetings issue of Europhysics News (the yellow issue) is published twice a year, giving a list of all known conferences in physics. The conferences sponsored by EPS are printed in bold type, while those organized by EPS Divisions and Sections, which we call "Europhysics Conferences" are printed in bold type and boxed.

EPS is not yet in a position to subsidize the sponsored or approved meetings. Each year, however, many conference organizers apply for sponsorship or approval of their conferences. The moral support of EPS helps in obtaining subsidies and grants from other sources, which might be public or private organizations. It also helps in obtaining a good participation to a conference from the various laboratories and research centres concerned, in obtaining grants for participants from governmental institutions, and in obtaining visas and authorizations when these are required.

Rules and criteria to be satisfied by conferences organized or sponsored by EPS have been worked out by the Conference Committee, approved by the Executive Committee, and published in the meetings issue of Europhysics News, in June 1972. They define our general policy and have been completed and improved since that time.

The CC itself does not organize any conferences. It tries to improve their organization and maintain reasonable standards. The initiative is left to the conference organizers and, whenever possible, new initiatives are encouraged, especially in frontier areas. Many conferences do not need EPS sponsorship. This is the case of local symposia (i.e. organized around the

work of a single institution), of National conferences or of conferences organized by two neighbouring countries. The large international IUPAP Conferences do not need EPS sponsorship, but very often wish to obtain it.

The CC, on the basis of its rules, tries to avoid overlap between conferences, to ensure that the sponsored or approved conferences are genuinely international, with a predominant European character; this should be reflected in their international Advisory Committees, in the invited speakers and chairmen, and in the attendance. Physicists from all countries interested in the subject should be able to participate. There should be no restriction on the attendance, based on nationality, politics, race or religion.

The CC also insists on the scientific value and the necessary high calibre of the programme of each conference. In a number of cases, it has requested that some subjects, or speakers from some countries, be added to the programme of a conference. It insists on the fact that the International Advisory Committee of each conference should not be a formal body but should really be consulted on the scientific programme and on the choice of the invited speakers. Very often, the CC has asked that an International Advisory Committee be extended to include other specialists, or other countries, so as to cover as well as possible the field of each conference. It is also important to include adequately the applied physics aspects in each topic when this is relevant. To ensure this, a representative of ACAPPI (the EPS Advisory Committee on Applied Physics and Physics in Industry) participates in the CC and is consulted on each conference.

The CC tries to maintain the registration fees at reasonable levels. This is not always an easy job.

To examine and evaluate each application for sponsorship or approval, the CC has set up a refereeing system according to which at least three of its members (including the ACAPPI and the relevant division representatives) are consulted in each case. Special rules have been established for Europhysics Study Conferences, and a sub-committee of three "wise men" gives special advice and scrutinizes this type of conference.

It is gratifying to note that conference organizers accept, in general, the remarks and the conditions imposed

on them by the referees. Since its creation, in 1969, the CC has examined more than 200 applications, i.e. 35 applications have been discussed during the last year which include 8 conferences organized by Divisions, 3 Europhysics Study Conferences and 7 Summer schools.

The CC has a more direct action in the case of the EPS General Conferences for which it helps to set up the general framework and the International Programme Committee.

A feed-back is necessary, so each conference organizer has been asked to return, once his conference is over, an appreciation on his meeting in a feed-back questionnaire which also covers the financial aspects. The representatives of the Divisions are regularly reviewing the conference activity in Europe in their own fields.

Some of the features described are not yet as satisfactory as they should be. Too often, applications for conferences are sent at a very late stage and the possible actions are then limited; it is important that the CC be informed, as early as possible, of an intended conference, in particular to avoid possible overlaps. We have also the feeling that there is not yet a correct balance between the applications received from East and West. The contacts with the representatives of the eastern countries should be improved.

Recently, the CC reviewed all Europhysics Study Conferences held since 1969; we came to the conclusion that less than half of them actually de-

served the denomination of Europhysics Study Conference. The others were rather classical topical conferences. Our CC will be more strict in the future in this matter.

Summer schools are not yet treated in a satisfactory way; the conference aspects are well scrutinized but there is not yet an evaluation of their pedagogic value. This should be done in the future with the help of the new Advisory Committee on Education.

The CC has recently helped in establishing a new EPS publication containing the abstracts of Europhysics Conferences which will thus be available to all libraries.

As explained before, we are not yet in a position to subsidize conferences. However, EPS has now established a conference fund which might be used somewhat like a solidarity fund. This fund is built-up with a capitation fee per participant paid in by all Europhysics Conferences since September 1974. This Fund will be used in particular to help young physicists to participate in European Conferences. Twenty grants have already been allocated by the Executive Committee, on recommendation of the CC, to young physicists from different European countries to attend the EPS General Conference in Bucharest.

We hope that by its conference activity the European Physical Society is helping to support physics and physicists.

*P. Radvanyi, Orsay
(Chairman of the EPS
Conference Committee).*

EUROPHYSICS CONFERENCE ABSTRACTS

Series 1, Vol. A to G

Individual Ordinary Members may order the Europhysics Conference Abstracts, for their personal use, from :

European Physical Society
P.O. Box 39
CH-1213 Petit-Lancy 2
Switzerland

at the price of Sw. Fr. 60.—.

Volume 1A : « Electronic Properties of Solids under High Pressure » (Leuven, Belgium, 1-5 September 1975) has now been published.

Order form : Europhysics Conference Abstracts, Series 1 (Vol. A to G)

Name :

Address :

.....

.....

.....

.....

I am an Individual Ordinary Member, No

Signature

Date

Highlights on Laser Fusion

Israeli Scientific Research Conference, Arad, 29 December 1974 - 3 January 1975

8th European Conference on Laser Interaction with Matter, Rynia, Poland, 19-23 May 1975

Besides the magnetic confinement of high temperature low density plasmas (the "Tokomak" device is the most promising) an alternative approach of the nuclear fusion problem deals with short lived super high density systems. The thermonuclear fuel, compressed to densities of up to 10^4 times the solid state, explodes. A few megajoules of fusion energy might hopefully be released in each such burst.

Following the pioneering work of Kastler, Basov and Krokin, and Dawson some ten years ago, it was discovered by J. Nuckolls and L. Wood of Livermore, K. Brueckner of KMS Fusion and the University of California at San Diego, and reportedly at Harwell (UK), that the interaction of laser

radiation with microspheres of thermonuclear material may lead to super-high densities through a nearly isentropic compression. Then the energy investment becomes comparable with foreseeable laser sources. Moreover, the yield of the subsequent explosion is kept to a level which causes no harm to the immediate environment.

The physics and technology involved are basically different from those of the Tokomak and scientists in the field have a quite different background. This fusion scheme has raised a growing interest for the last few years and at least in the United States and the Soviet Union the relevant research receives a large support.

It was the purpose of two recent conferences, of interest to the Eu-

ropean scientific community, to review the subject without overlooking the advent of a new competitor: relativistic electron beams. The first of these conferences was held at Arad (Israel) near the Dead Sea from December 29, 1974 to January 3, 1975 and was part of the programme of Israeli scientific research conferences.

The second one took place from May 19 to May 23 1975 in Rynia near Warsaw (Poland) and was the eighth European Conference on laser interaction with matter. Both conferences were more or less of the Gordon type, gathering a restricted number of scientists, scheduling ample discussion time and providing a friendly atmosphere.