Central European Countries Group to Join the ESRF

Last November, physical societies of Central Europe met informally to form a link with the European Synchrotron Radiation Facility. This is their letter of intent, the outcome of the meeting.

The unique characteristics of synchrotron radiation and the rapidly increasing demands of science and technology have recently made this new X-ray source indispensable in physics, chemistry, biology, materials sciences, *etc.* For many applications, the use of hard X-rays is essential.

A high level of science and technology is an immanent part of the European integration process. While the Central and Eastern European (CEE) countries are on their way towards European integration, none of them (nor Austria) can afford to build its own source of hard synchrotron radiation. Therefore, the joining of CEE countries and of Austria to the European Synchrotron Radiation Facility should be considered.

The European Synchrotron Radiation Facility (ESRF) is a joint institute funded by twelve European countries (Belgium, Denmark, Finland, France, Germany, Italy, The Netherlands, Norway, Spain, Sweden, Switzerland, and the United Kingdom). Portugal will join the ESRF as scientific associate with effect from 1 January 1998.

The ESRF has always been open to co-operation with scientists from all over the world. Thus a number of scientists from Central and Eastern Europe and from Austria have already carried out experiments at the ESRF as individuals, mainly in collaboration with institutions of contracting party countries of the ESRF. Recently, a few proposals directly submitted from these countries have also been accepted and carried out quite successfully at the ESRF. Nevertheless, a long-term use of ESRF by the scientific communities in CEE countries can only be based on a kind of membership that should be agreed upon at governmental level, in accordance with the European integration policy of these countries.

According to the by-laws of the ESRF, there are various levels of relationship with the ESRF ranging

- from full membership of a country (*ie* accession of its government to the ESRF Convention),
- through arrangements for long-term use of synchrotron radiation by governments, groups of governments or by establishments or organisations thereof (Scientific Associates),
- to short and medium term arrangements for use of the ESRF by national or international scientific organisations.

The rights, possibilities and financial burdens associated with each kind of relationship are different. Presently, most CEE countries are financially not in a position to become a full or associate member of the ESRF on their own. However, if CEE countries and Austria formed a consortium ('Centralsync') for full or associate membership, the financial burdens would be spread and become acceptable for each country.

We, the representatives of research communities of Austria, Czech Republic, Hungary, Poland and Slovakia, which are involved in the use of synchrotron radiation, express our sincere belief that CEE countries should form, as a first step, an associate consortium of the ESRF in order to establish official links of science and technology of the CEE region to the largest hard X-ray source in Europe. We are convinced that research and development in our home countries as well as the whole innovation process in our region will benefit from a direct access to the European Synchrotron Radiation Facility.

G. Vogl (Austria), J. Hrdy (Czech Republic) D. Berenyi (Hungary), A. Kisiel (Poland), M. Miglierini (Slovakia)

Meeting of Representatives of Physical Societies Katowice, September 1997

Last Autumn, delegates from national physical societies in Europe were invited to Katowice for the 34th annual meeting of Polish physicists. The following are four select items from the minutes of the meeting.

Young physicists

There is concern in many countries that there is a decline in the number of students studying physics. In many countries the most talented are studying business and languages. Many who have studied physics go into banking or other business fields and are scathing of those who have remained in physics in universities. Many courses are recognizing this and including business training as part of physics courses. Nevertheless, the importance of protecting basic research is recognized.

Seminars on Enterprise

There was a request from the Romanian Physical Society for advice on setting up and running technology-based enterprises. IGAPPI [Interdivisional Group for Applied Physics and Physics in Industry] is organizing a meeting in London for technology-based SMEs. It is recommended that a follow-up meeting be run somewhere in Central Europe.

Central European Journal of Physics

There was support for a Central European Journal of Physics combining existing national societies' journals. The advantage is that this would be more prestigious, more likely to be read in the West, *etc.* Resistance may come from those societies gaining significant income from existing journals. The option of a combined journal and the possibility of an electronic version needs to be pursued further.

Teaching and Research

Concern was expressed about the legacy in Central Europe of separating teaching from research. Although good researchers do not necessarily make the best teachers, this split was resulting in poor teaching, particularly as university teachers' salaries are well below the national average. In Hungary there is a system for funding university staff for periods of three years, giving them reasonable salaries, but letting them do what they want. This is possible for 33 per cent of staff.

European Physical Society

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Know a thing or two about business? Last page...

Secretariat

A Year in France

The Secretariat, the administrative body of the European Physical Society, moved to new headquarters in Mulhouse, in the Alsace region of France, a year ago. Office supplies, conference proceedings and the EPS archives were transported by truck to Mulhouse on a snowy day in January 1997 from the old offices at Geneva. To mark the passing of one year, *Jean-Philippe Ansermet*, writes an open letter of encouragement about recent changes, and of decisions made in the last Executive Committee meeting of 22 November 1997.

A year is past and the Secretariat of EPS has established a solid base at Mulhouse. The 300 m^2 of rent-free office space and meeting room is now bustling with a committed team. An appointment committee, composed of members of the Executive Committee, was given the task of helping the Secretary General, Gero Thomas, in the staffing process. In particular, it appointed an administrative director (David Lee) who had been sought in the greater Mulhouse area.

David Lee has been in office now since October last year. His efficient approach, his pleasant personality and his eagerness to learn more about the physics community, constitute a terrific asset for the EPS. The Executive Committee decided in its last meeting to appoint him as Secretary General when Gero Thomas retires, at the end of March 1998. (Gero Thomas will be available as a consultant to the EPS.)

Every *Europhysics News* reader has been able to appreciate the work of Toby Chapman, our new Editor. He is determined to make *Europhysics News* an attractive journal that physicists, young or young at heart, will consult regularly with pleasure. He is establishing a network of correspondents among Divisions and national societies. Special issues are already planned for next year.

The ever-smiling, enthusiastic Christine Bastian has quickly mastered the numerous tasks needed of the EPS Secretariat. The Executive Committee is to examine with her the possibility of providing services to divisions, along the lines of the wishes expressed by the Quantum Electronics and Optics Division.

Thanks to the long experience and the dedication of Maria Lazar, the office at Budapest accomplishes a great variety of administrative tasks which are central to the running of the EPS: membership administration, annual invoicing of members, reconciliation of payments made directly to national societies, reconciliation between payments received at the EPS's 4 bank accounts and invoices, administration regarding nominations for Council members, organization of the East-West Task Force meetings in Budapest, general information requests from members and Divisions, the establishment of voting lists and voting rights at Council Meetings and in the Divisions, and subscriptions for Annual Reviews and the European Journal of Physics.

In view of the excellent work accomplished at the Budapest office at an advantageous cost, the Executive Committee has decided to maintain it.

Mrs Padovani is a half-time accountant at the EPS secretariat in Mulhouse. The work of the Treasurer has greatly improved thanks to her services and the EPS Secretariat benefits from her experience in its dealings with the intricacies of French law.

Mrs Marie Blandine-Fuchs is a half-time secretary who has been a precious helping hand at EPS since August 1997.

Salia Cherifi is our Student Liaison Officer. She works at EPS HQ three afternoons a week developing services for young physicists.

Best wishes to the new crew.

Executive

Nominations for Members of the Executive Committee

The Executive Committee is preparing nominations of candidates for election by Council in March. Proposals must include the next President-Elect. Article 21 of the constitution specifies the procedure, as follows:

1. The Executive Committee, elected for one year by the Council, normally from the Council's own members, shall consist of eleven members, ie *a President who shall also be the President of the Society and the Chairman of the Council, a Vice-President, a Secretary, a Vice-Secretary, a Treasurer, a Vice-Treasurer and five other members notwithstanding article 21.3.*

2. The President shall be in office for no more than two years. The candidate for presidency shall be the President-elect who is elected one year before the election to President takes place. During this year the President-elect will act as the Vice-President.

3. Members of the Executive Committee do not serve for more than five years consecutively except that a member being elected President-elect in the fifth year of office may serve as President for the two following years.

Typically, but not exclusively, members of the Executive Committee do the exploratory work to identify outstanding scientists who have experience in high-level administrative activity, a strong commitment to European cooperation in physics, and a willingness to take on the responsibility. It welcomes advice from constituent societies and other bodies, and from members.

Committees

A New Committee for Professional Qualifications

In its meeting on 22 November 1997 the EPS Executive Committee decided to merge the Register Commission and the European Regional Monitoring Committee into the Committee on Professional Qualifications. The new committee will continue to look at issues of professional qualification in Europe, and will handle applications for European Physicist.

With this decision the Executive Committee expects processing of applications will proceed in a smoother and more cost effective way than in the past. Most of the applications will be handled by a small body, consisting of the chairman, the secretary and two members from the new committee. The more complicated cases will be discussed in the yearly meeting of the Committee. Advisors will be provide advice by correspondence to the Committee on the educational qualifications and related matters of the country for which they represent.

Unsuccessful applicants will be able to ask the Committee to reconsider their case and, if they so wish, bring forward further evidence in support of their application. If after that stage they remain dissatisfied with the decision then they will be able to appeal to the President of the EPS who will establish a panel consisting of one member of the Committee and at least two other members of the Executive Committee, who are not members of the Committee on Professional Qualifications, to advise him.

Admission to the Register

The academic qualification must be in physics or in a physics-related discipline which is acceptable to the Committee. It may have involved at least the equivalent of three years' full-time university-level education.

Evidence of at least two years' appropriate experience gained in a professional capacity after graduating is also required. This experience could include research and development, project management, supervision and the training of others, and safety management.

The remaining period, which must have lasted for at least two years, may consist of either education leading to an academic qualification or appropriate experience involving responsibilities and deemed satisfactory by the Committee. It must also include a period of training during which the applicant has acquired aptitudes or skills needed to exercise in the chosen profession and in a responsible capacity.

A physicist included on the European Register of Physicists can use the designation European Physicist and its abbreviation EurPhys.

The European Register of Physicists was introduced on 3 November 1995; 20 physicists were accepted in 1995, 26 in 1996 and 27 in 1997.

How to apply

An application form may be obtained either from the Secretariat of the European Physical Society or from many of the national physical societies. Upon completion the form should be sent, together with the non-refundable application fee of 70 NLF, to the secretary of the Committee on Professional Qualifications.

Divisions

Proposals for New Sections of the Condensed Matter Division

The Board of the Condensed Matter Division is currently reviewing the structure of its sections. It would like every member of the Division to be able to identify with at least one section, noting that members can belong to as many sections as they wish. The present sections are mainly based on types of materials (semiconductors, polymers, liquids, *etc*) and do not offer natural homes for members working on methods or concepts which span different materials. A number of possible sections have been identified which could be of interest to such members and fill some gaps in the present structure. It is believed that greater active participation of members through sections will strengthen the Division in its interactions with the rest of the EPS and with other bodies, especially at the European level.

In order to create new sections the Board needs to know the level of interest of members in their creation and their likely vitality in terms of coordinating existing European meetings, interactions with other organisations *etc*. In particular the following three new sections are under consideration. A brief outline of the motivation is given for each of them.

Peter Wyder, Chairman of the CMD
HR Ott, Chairman-Elect

Statistical Physics of Materials

Statistical physicists have broadened their scope of interests considerably in the last few decades, and the methods and concepts developed for such problems as critical phenomena or disordered materials have found fruitful applications in most branches of physics and even increasingly in other disciplines. This success has made the field extremely active and stimulating, but has also increased the distance between theorists and experimentalists, and between practitioners of the various subdomains.

We propose to counterbalance this trend by the creation of a new section, which could be named Statistical Physics of Materials and would be open to physicists working, for example, on granular materials, glasses, wetting transitions, vortex matter, or strongly interacting fermions and bosons. Though it would cover only part of the very diverse problems that statistical physicists have come to study, it does correspond to a rather well focussed and basic area. Indeed, historically, the challenges brought about by new materials and by unexpected discoveries in condensed matter have been among the most potent forces stimulating new ideas in the field.

Guy Deutscher, Tel Aviv; Alan McKane, Manchester; Jean Vannimenus, Paris

Electronic and Optical Properties of Solids

The general properties of electrons in solids and the optical properties which follow from them are of very broad interest. Some of these properties are not restricted to particular types of material and current research can be of wide relevance. These remarks apply to both theoretical and experimental studies and encompass large scale calculations and major facilities.

Part of this area of interest used to be covered by a section devoted to metals, but that title implied a narrow field. That section has ceased to be active and the work of many of those who would have been in it does not fit well into the remaining sections.

Accordingly, a new section is proposed, to represent the interests of theorists and experimentalists who work in the fields of electronic and optical properties but whose interests are not restricted to particular materials systems represented by other sections. Examples include band structure calculations such as are represented in the PSIK network, some areas of heavy fermion research, experimental techniques such as muon and positron scattering and equipment development including large facilities.

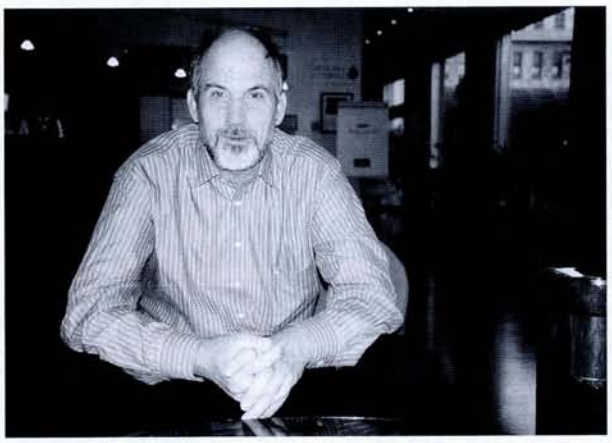
John Beeby, Leicester;
Hans Kuzmany, Wien

Structural and Dynamical Properties of Solids

A new section is proposed to represent scientists, theoreticians or experimentalists, working on dynamics of solids, on their structure as far as is relevant to their physical properties, and on static and dynamic properties associated with structural phase transitions. Dynamics is meant in the broad sense, and includes lattice dynamics and nonlinear dynamics of periodic and aperiodic crystals and amorphous materials. Structural properties include description, characterization and determination by various techniques (*eg* neutron and X-ray scattering) of solids. Structural phase transitions include, but are not restricted to, ferroelectric, ferroelastic, incommensurate, martensitic and order-disorder transitions.

Karl H. Michel, Antwerpen;
Ted Janssen, Nijmegen

Comments on these proposals would be welcome, as would expressions of interest and suggestions of names for section committees. Please send comments to: Jean Vannimenus for Statistical Physics of Materials (*jean.vannimenus@physique.ens.fr*); J.L. Beeby for Electronic and Optical Properties of Solids (*zjb@le.ac.uk*); and T. Janssen for Structural and Dynamical Properties of Solids (*ted@sci.kun.nl*).



Eberhard Hilf spends a lot of time in front of a computer screen. As a theoretical physicist he uses much of Oldenburg University's supercomputing power to analyse atomic clusters. And as Webmaster of EuroPhysicsNetwork he is trying to build as comprehensive and as authoritative a database of online physics information as possible. Visiting Mulhouse recently to present his project to the EPS Executive Committee, he said that normal search engines don't reach deep enough into Websites, so they miss many documents. And they give too many useless hits to acronyms like CPT. His answer is a database of all the official Websites run by European physics departments. He and colleague Thomas Severiens have already examined 1300, and indexed them (see *www.physik.uni-oldenburg.de/Docs/home/phys-links.html*).

But he doesn't want to be Webmaster for ever. He wants to recruit 100 institutes to the project, each of which will run local indexes. He can then let the Site run itself. And this will open up access to departments in the East, he says, since a network of indexes will speed-up access to them. *Toby Chapman*

Groups

Interdivisional Group for Applied Physics and Physics in Industry

From its foundation the European Physical Society was reluctant to set up an Applied Physics Division for fear of divorcing the application of physics from the fundamentals that support it (as members wished to see the applications of physics discussed in the same forums as its underlying basic research).

Instead, an Advisory Committee for Applied Physics and Physics in Industry (ACAPPI), which subsequently became an Action Committee, was set up to advise the Executive Committee and to organize events. A large part of ACAPPI's role was running Europhysics Industrial Workshops (EIWs) bringing together physicists from industry and university to discuss technologies just reaching the stage when commercial application could be considered. (Topics covered recently in the workshops include thermal micro-sensors, industrial applications of positron annihilation and nanoscale science and technology.) Reflecting the new EPS constitution under which members of national societies became members of EPS and (with the exception of members of DPG and IOP) received *Europhysics News*, the Action Committee became an Interdivisional Group (IGAPPI) in March 1995 to enable individual physicists to play a greater role.

The EIWs have been continued but, building on an earlier conference on physics in industry, there has been a move to broader topics. Two seminars on university-industry collaborations in research have been held and seminars on employment of physicists formed part of EPS-10 in Seville last year. In such ventures IGAPPI has collaborated with other bodies, in particular the EPS's Action Committee on Physics and Society and, more recently, with SEFI (Société Européenne pour la Formation des Ingenieurs) on physics teaching in engineering education, at a meeting held in Copenhagen in June last year. Events being planned include a meeting on engineering physics courses (jointly with SEFI and IOP) and meetings on and for technology-based small to medium-sized enterprises.

If you would like to join the Interdivisional Group please do so by contacting your national society (individual ordinary members can contact EPS in Mulhouse direct). If you would like to join the Committee, organise events and help EPS play a stronger role in applied physics and physics in industry, please contact me via EPS in Mulhouse, whether you are a national society member or an individual ordinary member.

Peter Melville, Chairman, IGAPPI

Prize

1988 Quantum Electronics Prize of the European Physical Society

The Quantum Electronics and Optics Division would like to announce its Quantum Electronics Prize for 1998. The award is given for outstanding contributions to Quantum Electronics and Quantum Optics in both basic physics and applied science. It consists of a medal and a diploma. The Selection Committee invites nominations for the 1998 Prize which will be awarded during the EQEC/CLEO Europe meeting in Glasgow (13-18 September 1998). Nominations may be submitted by EPS members (Individual Ordinary Members or National Society Members) as individuals or as a representative of a Division, Section or Group.

We remind you that Claude Cohen-Tannoudji and Sune Svanberg received the Prize in its first year, 1996, in Hamburg. Proposals for 1998 should consist of a short presentation of the nominee (one page maximum), a brief *curriculum vitae*, a list of major publications and the motivation for the award in one sentence. Letters of support from authorities in the field which confirm the importance of the work would also be very welcome.

All information will be treated in strict confidence, and although proposals are acknowledged there will be no further correspondence. Nominations should be submitted before 31 January 1998 to David Lee, Administrative Director, EPS, 34 rue Marc Seguin, F-68060 Mulhouse, France.

Summer School/Workshop

Wanted: Business Discussion

Since the possibility of a physicist getting a job in Slovenian industry is rather small, the Youth section of the Slovenian Physical Society has decided to organize a summer school or workshop where young physicists will be able to learn how to select ideas and innovations and how to apply them in industry or in small private enterprises. The idea of the school is to show young people how to enter into the world of competition in business and to give them the opportunity to exchange their knowledge and problems with other European physicists.

We therefore invite everybody who would like to share his or her experiences (or problems) on the topic of 'making business with physical ideas' to contact Anamarija Borstnik, Slovenian Physical Society, 19 Jadranska, 1000 Ljubljana, Slovenia. E-mail *anamari@fiz.uni-lj.si*.