

Directories of Physics in Africa

[1] *A Catalogue on Research Activities in Physics and Related Fields in Eastern and Southern Africa*, Eds.: L. Hasselgren and R. Kivaisi; available free of charge from IPPS, Uppsala Univ., Dag Hammarskjölds väg 31, S-752 37 Uppsala (fax: +46-18-18 34 95).

[2] *A Catalogue on Research Activities in Physics and Related Fields in Northern and Western Africa* (in preparation). A questionnaire is being sent to universities and institutions in the region. If you are collaborating with an active group, or if you want further information or to receive the questionnaire, please contact: P. Brault, IGPD Secretary, GREMI, Université d'Orléans, BP 6759, F-45067 Orléans Cedex (tel.: +33-38 41 71 25; fax: +33-38 41 71 54; brault@univ-orleans.fr).

Europe but this has not always been possible so some planned schools had to be cancelled. Two have been held to date (*Dynamical Processes in Molecular Physics* in September 1991 in Avila under G. Delgado-Barrio from Madrid; *Lasers and Applications* in Heraklion in May 1994 under C. Fotakis from Heraklion). The outcome of the first two schools was very positive, largely owing to the quality of the interactions between participants. The IGPD feels strongly that this activity must continue, with a new location and topic each time. Extension of the geographic area to both eastern Europe and to all countries around the Mediterranean should be encouraged. Unfortunately, financing has been too problematic to allow the schools to be held on a regular basis. The IGPD will be collaborating in the organization of the third school that is being planned for Portugal in 1997, for which there are positive signs of support from some new funding sources.

• **Satellite meetings:** Since its foundation the IGPD has worked hard to remind participants at the triennial EPS General Conferences of the problems physicists face in developing countries and of the need for cooperation between countries inside and outside Europe. For instance, a satellite meeting to EPS-8 (Enschede, 1990) organized by M. Rodot and D. Feil on *Physics and Physicists for Development* attracted more than 60 participants from 23 countries and resulted in a widely distributed declaration. At EPS-9 (Florence, 1993), two IGPD members (F. Brouillard and C.G. Granqvist) gave talks during a session on *Physics in a Changing World*. In collaboration with the Action Committee for Physics and Society, we aim to organize a satellite school on *Renewable Energies* (mainly solar energy and related topics) after EPS-10 (Sevilla, September 1996).

• **Conferences:** A conference in Dakar on spectroscopic methods in physics is planned for early-1997. As usual, we intend to favour joint initiatives with other EPS bodies concerned with education and applied physics, notably the Action Committee for Physics and Society, the Interdivisional Group for Education, the new Interdivisional Group for Applied Physics and Physics and Industry, since technological development implies commitments in all these aspects.

• **Directories:** A catalogue on research activities in physics and related fields in north and west Africa is being prepared by the IGPD with help from the International Program in Physical Sciences, Uppsala, which published a similar catalogue for east and southern Africa in 1994 [1]. The aim is to present active research groups, with an emphasis on experimental and teaching facilities, so as to stimulate regional cooperation by avoiding duplication [2].

More generally, it is the contribution of all its members which makes the IGPD visible and efficient. We believe that the Group's main resource comprises people having considerable knowledge and experience and that direct links between institutions or individuals in countries at different stages of development are more effective than solemn declarations. We aim to seize opportunities being offered by the European Union (EU) for supporting scientific collaboration, notably the many interesting oppor-

tunities for physics-related topics which are available outside the EU Training and Mobility of Researchers programme (e.g., the JOULE and THERMIE for research on energy). Improving teaching and training in physics, from the first year at university (or even secondary school) to the graduate level, are of primary importance and here we may be able to obtain substantial support from the EU via ALFA (academic formation in South America), TEMPUS and TACIS (for east and central Europe and the former Soviet Union), MEDCAMPUS (for countries around the Mediterranean), and CAMPUS (for African countries). Several bilateral programmes for cooperation between Europe and developing countries are also open to physics-related research. If we promote collaborations by circulating information on funding sources and enabling direct contacts during schools and conferences, the IGPD will continue to help bridge the scientific and technical gaps between countries at various stages of development.



EMSPS Scheme Continues to Expand

The Mobility Committee reviewed the European Mobility Scheme for Physics Students and other activities during a meeting in Belfast on 21-23 September 1995.

It is a little earlier to estimate exactly how many students will move this year between institutions participating in the European Mobility Scheme for Physics Students (EMSPS) scheme which is managed by the EPS Mobility Committee. But the number will certainly be larger than the 253 for the 1994/5 academic year so the scheme continues to grow.

Many students moving between participating institutions located within European Union (EU) countries receive grants funded by the EU's ERASMUS programme. ERASMUS has been absorbed into the new SOCRATES programme, but to give universities time to coordinate applications for mobility grants, the European Commission (EC) decided in June to delay implementing of the ERASMUS part of SOCRATES funding. The committee has prepared an application for a renewal of its ERASMUS Inter-university Coordination Project in 1996/97 which takes into account the fact that the SOCRATES transitional measures allow neither "internal expansion" nor new participating institutions. Since Switzerland does not participate in SOCRATES there will be no ERASMUS under SOCRATES mobility grants for students moving into or out of Switzerland as from the 1996/97 academic year. However, the Swiss authorities are preparing measures to award grants to both incoming and outgoing students (details will be known later this year).

The EMSPS made applications in 1994 to the EU's TEMPUS programme for mobility

grants for students moving in 1994-97 between EU countries and a total of eight east and central European (ECE) countries. Applications covering Hungary, Latvia and Poland were successful, those for the Czech Republic, Lithuania and Romania being unsuccessful because the national TEMPUS authorities did not include student mobility in science as a priority. The situation has fortunately changed somewhat since TEMPUS applications for Lithuania and Romania covering some 10 institutions in the period 1995-98 have been accepted.

Students from some 24 EMSPS participating institutions in Austria, Hungary, Poland, Slovakia, and Slovenia are also eligible for mobility grants awarded by the Central European Exchange Programme for University Studies (CEEPUS). H. Latal, the EMSPS Chairman, reported that 81 CEEPUS scholarship-months have been awarded to 23 institutions for 1995/96, a sizable increase from the 10 that were taken up in the last semester of the 1994/95 academic year when CEEPUS was launched.

The Soros Foundations have been supporting mobility grants awarded by EPS to students moving from ECE to institutions in western Europe. Unfortunately, priorities have changed and it now seems unlikely that the programme will continue beyond the 1995/6 academic year.

The EMSPS database in Manchester is a vital element of the scheme as it allows students and their coordinators to identify suitable courses. Information about courses

in each participating institution is essentially loaded by the institution's coordinator to ensure relevance and a reasonable level of homogeneity. It can be consulted over Internet by telnetting to emspsd.man.ac.uk (logon = "student"; password = "student1"). The committee decided to convert the information to make it available on the World-Wide Web (WWW). This process has started and the EMSPS database together with all the information and documents relating to the scheme can now be accessed at <http://info.mcc.ac.uk/emspsd/>. Links to other WWW servers giving general information on mobility arrangements in participating institutions are envisaged. Only time will tell if a more decentralized structure is desirable.

The EMSPS service is coordinated by the EPS Internet Coordination Group as part of the EPS **EurophysNet** network of linked WWW servers covering all EPS activities. So it can be linked to via the EurophysNet home page at <http://epswww.epfl.ch>. However, WWW access is by no means universal and even telnet access is rare in some EMSPS institutions. Coordinators are obviously working to improve the situation. It is envisaged that the telnet service will be maintained for another 18 months while information is converted.

The committee has also been collaborating with the new EPS Interdivisional Group for Physics Education on the much wider issue of ways to improve physics education in Europe. One opportunity is to establish a European Physics Education Network (**EUPEN**) to support a European dimension through cooperation between university departments. A steering committee (H. Ferdinande, C.M. Ferreira, L. Dona'dalle Rose, J.C. Dore, and E. Elbaz with I. Sosnowska as an associate) is to submit a funding application by 1 January 1996 to SOCRATES that will be based on the outcome of last April's EC thematic evaluation conference [EN 26 (1995) 69].

Thanks to the indefatigable R.G.H. Greer who hosted the meeting, the Committee was able to tackle a very charged agenda while enjoying several different locations interspersed with special events. The latter included a reception organized by Belfast's City Council in its City Hall and a meeting with four students from France, Austria and Poland who were starting their mobility year at The Queen's University.

Condensed Matter Division Board CALL FOR NOMINATIONS

The Board of the EPS Condensed Matter Division includes five members elected by Individual Ordinary Members (IOMs) of EPS who belong to the Division. These IOMs are invited to submit by 30 November 1995 the names of candidates for election to the Division Board. Nominations should be sent to G. Thomas, Secretary General, EPS, BP 69, CH-1213 Petit-Lancy 2 (fax: +41-22-793 13 17). Three supporting signatures of IOMs are required as well as a candidate's written agreement that he or she is willing to serve. The term of office is three years and re-election for a second period is allowed.

J.L. Beeby, S. Hess and I. Ipatova will stand for re-election so an additional two nominations are sought.

Remembering Gilberto Bernardini

Gilberto Bernardini, the first EPS President, left us on August 4 of this year while living in his beloved Florence where he was born in 1906.

"... We do believe, then, that Europe is the country that has the best chances of bringing a fundamental contribution to the creation of this new approach to the life where science will represent a new humanism for the structure of societies, as well as for the comfort of individuals. The European Physical Society, according to us, should be formed into these hopes."

It was with these words that Gilberto Bernardini ended his speech at the ceremony held in the University of Geneva's Aula Magna on 26 September 1968 marking the foundation of EPS.

His message culminated the realisation of the dream that Gilberto spoke of for the first time at the National Conference of the Italian Physical Society in November 1965 in Bologna. This dream was defined and articulated three years later in Pisa in the spring of 1968 following the creation, at the end of 1967, of a steering committee to draw up the first EPS Constitution.

As Bernardini recalled in 1988 when we celebrated in Pisa the 20th anniversary of the foundation of EPS, the Society's creation was a "milestone of the future European nation" — nation that he and the founding fathers had in mind for the physics community throughout Europe, both east and west. This "universal spirit" was present in Florence at the EPS Inaugural Conference held in April 1969 at the Palazzo Vecchio with Bernardini, as the EPS President (1968-1970), in the chair. It was present 24 years later in Florence at the 9th EPS General Conference and celebration of the 25th EPS anniversary, where he made one of his last public appearances.

Before becoming President of EPS, Gilberto was from 1961 to 1967 the second President of the Italian Physical Society. He always represented an exceptional point of reference, both as a scientist and as a human being, in developing and strengthening the unity and cultural development of physics in Italy and in Europe. With him a truly historical era disappears, since he belonged to the group of founding fathers to which we owe the renaissance of physics research in Italy in the 1950s after the Second World War. Its members tackled a challenge that let Amaldi, Bernardini, Occhialini, and Rostagni among others, together with Polvani, the first President of the Italian Physical Society, assume the inheritance of Enrico Fermi and Bruno Rossi who worked in Rome and in Florence in the 1930s.

It was in fact near Florence (in Arcetri) that Gilberto met Bruno Rossi in 1928. Let's quote Rossi himself from "Early Days in Cosmic Rays" [*Physics Today*, October 1981]: "... The group I found in Arcetri was quite small, but quality made up for the size. Gilberto Bernardini, a recent PhD in physics from the University of Pisa, had joined the group before my arrival. Among the



Gilberto Bernardini in April 1968 at the EPS Inaugural Conference.

students were Giusseppe Occhialini, Giulio Racah, Daria Bucciarello, Guglielmo Righini, Lorenzo Emo... Both Bernardini and I were very anxious to start some experimental program ..."

It is this tradition which enabled Gilberto, after his research in the United States (Columbia, Urbana and Chicago), to contribute personally and enormously to the evolution of cosmic-ray and elementary particle physics in Italy in the 1940s with the realisation of the "Testa Grigia" laboratory on Monte Cervino in 1942. It was the first European high-altitude laboratory dedicated to detecting cosmic rays. Moreover, Gilberto Bernardini, together with Edoardo Amaldi, was one of the founders of the National Institute for Nuclear Physics (the INFN). He served as the organization's first President from 1954 to 1961 while contributing to the foundation of CERN, where he was Director, initially of the Synchro-Cyclotron (SC) Division and subsequently of the Research Division. His Presidency of the INFN saw the creation of the National Laboratory of Frascati with its 1000 MeV electrosynchrotron which was for some time Italy's principle research instrument. This step allowed Italian physicists to work once again at the frontiers of nuclear and sub-nuclear physics and of the related studies on fundamental interactions.

Last September's meeting on "Astrophysics and Cosmic Rays" held in Florence to honour Occhialini, Pontecorvo and Rossi — three of Italy's most eminent physicists — should have been opened by Bernardini. Unfortunately for us he could not attend. Now he has joined them for ever in our memory. And together with them he leaves us, as his precious heritage and his most edifying example, not only his scientific stature but also his inspiring humanity.

R.A. Ricci
*President, Italian Physical Society
EPS Past-President*