40 YEARS OF THE EPS:

VIEWS FROM PRESIDENTS ZICHICHI AND FRIEDEL

›››HISTORY

During this year celebrating the 40th anniversary of the EPS, Europhysics News publish a sequence on this event in each issue. In the first one, EPN 39/1, the article of H. Kubbinga recalled the early years of the EPS. For the next issues, contributions have been asked from several former Presidents of the EPS and will be published, possibly in the order of presidencies, together with some testimonies from other former EPS actors. In the present 39/2 issue we have the great pleasure to publish the reflections of former Presidents A. Zichichi (1978-80, Italy) and J. Friedel (1982-84, France)

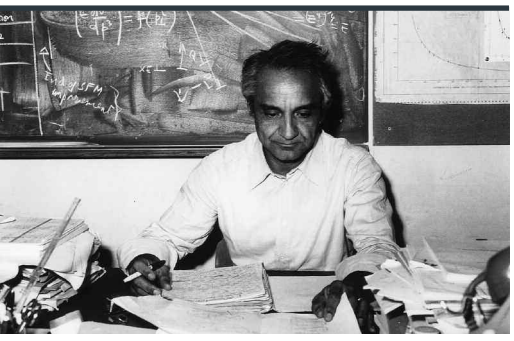
The EPS during two difficult years (1978–1980)

Antonino Zichichi (Italy)
EPS President (1978-1980), and the EPS youngest founding member (1968)

During my period of presidency, there are a few points of the EPS activities which are worth remembering.

The first one is the implementation of actions in order to soften the very difficult conditions of Eastern physicists, dictated by the existence of the iron curtain. EPS succeeded in creating, for the first time, a "spirit" of reciprocal confidence between the East and the West. For the first time, research physicists were allowed to spend some time in Western universities and research centres. This was the result of our visits in Moscow, Bucharest (Romania), East Berlin, Novosibirsk (Siberia) and Budapest (Hungary).

▼ **Pr. Antonino Zichichi**



The 1979 EPS Conference in Geneva was the best proof that the exchange programme for scientific activities was effectively improving the situation. Let us not forget that it was ten more years to go before the fall of the Berlin Wall.

The second point is the establishment of the International Seminars on the "European Great Projects". This initiative covered four fields: (1) Sub-nuclear Physics; (2) Nuclear Fusion; (3) Astrophysics and (4) Synchrotron Radiation. For the first time, all these activities were brought together and, on March 1979 in Rome, the European Great Projects were presented and discussed jointly, thanks to EPS.

It is probably of interest to recall my opening remarks at this conference:

"The future of physics research, up to the year 2000, will clearly be based on the scientific choices we are making now. Compared with the recent past we have therefore two basic points to consider. When I started my research activity in the fifties a few physicists could do an experiment in a year or so. The average number of people and the time needed to accomplish research work have both drastically increased since then. And this is not all. As mentioned above, we are reaching the state where our decisions severely affect future generations of physicists. For example, a student, now in high school, will be a physicist with the right age to work with one of the facilities to be built in the four fields. He will be working in collaboration with many other people. Yet the source of new ideas will always be a single person."

"The European Physical Society, whose members are physicists working in all fields of physics, and living all over Europe – from North to South, from East to West – was given the task of establishing a suitable forum where an important part of the future of physics could be presented and discussed by the European community of physicists. The members responded with enthusiasm to the EPS proposal: 250 of them, actively engaged in these important areas of research, came to Rome to attend the EPS International Seminar, whose proceedings are the content of the present volume".

"It was the first time that EPS members, working in different branches of physics, had the opportunity to meet and discuss large future projects. The interest in this new EPS Seminar was such – and this we could only find out after the Seminar was over – that the forecast for the future appears promising."

"Let us hope that an EPS forum can be established where the status of all European Great Projects can be reviewed and discussed regularly."

In the picture below there is a view of the Aula Magna "Pietro da Cortona" of the famous Palazzo Barberini in Rome where the EPS conference was held.

▲ **The Aula Magna "Pietro da Cortona" of Palazzo Barberini.**

▼ **President A. Zichichi and EPS Executive Committee members meet with H.H. John Paul II during the March 1979 Conference in Rome**

The third point is the meeting of the EPS Executive Council with H.H. John Paul II, in the Vatican. This is the meeting where the Pope gave the speech celebrating Galileo Galilei as the father of modern Science, thus opening the doors of the Catholic Church to Science.

This played an invaluable role in eradicating the danger of a Nuclear Holocaust, and in confronting, through factual

projects, the danger of an Environmental Holocaust in the undeclared war between the planet's North (the rich) and South ••• ••• (the poor). The scientific community could never have hoped to obtain such an outstanding support for the implementation of this extremely difficult task.

It is the EPS who had the cultural courage to establish a close link with the Pope who, for the first time in the history of modern culture, has distinguished Science from Technology with his famous statement: "Man could perish from the effects of technology that he himself develops, not from the truth that he discovers by means of scientific research". This statement is forged in iron and displayed at the Ettore Majorana Foundation and Centre for Scientific Culture in Erice, a Centre with has kept, during many decades, a close collaboration with EPS.

During the meeting the EPS Council expressed its gratitude to John Paul II who, with his strong cultural support, allowed EPS to be at the centre of the public opinion, worldwide, and gave it the opportunity to implement its task of enhancing physics research in all fields of frontier Science. ■

The EPS as I knew it

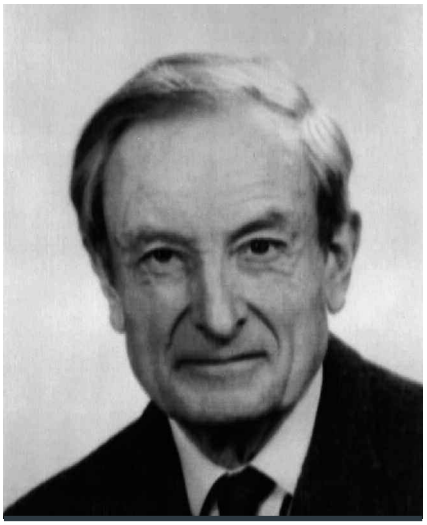
Jacques Friedel (France)
President of the EPS, 1982-1984

When envisaged at a meeting in Rome in the late 60's, the European Physical Society looked like a dream, between the remembrance of a Europe of passport-free travel before the First World War and the post-war increasingly rigid separation between East and West. This dream, the high-energy physicists were the first to have a taste of, by the creation of CERN, which united their efforts in the West and quickly developed working contacts with the East. Fermi's heritage pushed the Italians to take an active part in this enterprise; and their new summer schools of physics, in Varenna and Trieste, to be followed by Erice, led them to the idea that CERN should be the nucleus of a European Physical Society extending over the whole of Europe and replacing the National Societies in their role of stimulating both research and teaching. This wonderful dream tried to forget about the existence and possible usefulness of National Societies and the then very different aspects of research in various European countries, notably in its organization in East and West. Many discussions had to take place before EPS was launched at CERN in 1968, on a compromise between a Society of Individual Members and a Society of National Physical Societies. Representatives of both kinds of members were, from the start, elected into the General Assembly; the meetings and a small secretariat were housed in Geneva Battelle Institute; and a complex but realistic compromise on dues and membership to the Assembly, obtained by the clear-sightedness and tenacity of people such as Francis Netter, brought life to the Society.

I did not take part in the preliminaries, but was sent as a delegate of the French Physical Society to one of the first meetings of the **General Assembly**, chaired by the Director of CERN, my old friend Bernard Grégory. The Society had to be organized; and we created specialized divisions, notably, with my help, a large Condensed Matter Division, including solids and liquids but also "soft matter", already dear to Pierre-Gilles de Gennes, such as polymers and liquid crystals.

Being then engaged in renovating our "Journal de Physique", I was quickly included in a **Publication Committee,** created to implement an ambitious OCDE plan to build a European Physics Journal out of existing ones from Italy, England and the Netherlands. This did not please the Germans or the French and left the Eastern Countries indifferent. The final and much more modest decision was a mere labelling by EPS of a number of national physical journals. Later efforts to regroup some of them occurred after my presidency, under the impulsion of people like Philippe Nozières and Denis Jérome. My last publication meeting occurred in an overexcited Prague, just after the "spring revolution", when the people loudly protested in all cafés in town against the recent arrival of Russian tanks and the death of Jan Pallach.

My next role in EPS was in the **Executive Committee**, with repeated meetings at EPS's secretariat in Petit-Lancy,



▲ Pr. Jacques Friedel

which I found congenial and stimulating under the Rudberg's genial presidency. It was a good opportunity to learn and judge the underlying strengths and tensions in the Society, these last being more between the smaller and larger countries than between scientific domains or between East and West. The Committee normally proposed new Presidents, and I am rather proud of having successfully proposed H. Casimir, who turned out to be one of our scientifically stimulating stars as well as a famous physicist in industry. H. Casimir reported to me later on the low esteem into which his old master Pauli was placing such activities in industry. But his knowledge and judgements in recent developments of physics were deep and varied; and as a member of an active group of European industrialists interested in research (EIRMA), he was the first to push EPS in that direction. During a General Assembly in Bucharest, he also did not hesitate to tell President Ceausescu to his face, at a large dinner, that his obstruction to free exchanges of scientists with the West was both shameful and counterproductive.

When elected to the **Presidency of EPS** (1982), I found the Society in financial difficulties, owing to the reluctance of Eastern countries and members to pay increasing dues for an expanded secretariat aptly ruled by G. Thomas. My predecessor had accepted the shift of the secretariat to cheaper Budapest. While agreeing to part of this move, in a country which was then trying to open itself to the West, I did not like to loose the insurance of stability of

the Swiss franc as well as the stimulating proximity of CERN and of many other scientific and industrial research activities; indeed I said that I would be equally against a move to France for the same reasons. The Assembly followed me because there was a financial alternative: working within our connections from Ecole Polytechnique, Albert Messiah, an EPS individual member, and myself had started enlisting the support for EPS of most large French industrial firms, in exchange for a membership that opened to them new European connections. I was convinced that similar successes could be obtained in other countries if we developed a real and visible interest for applications, both in our Divisions and in a yearly general meeting on Applied Physics as well as in more specialised discussions. Indeed I held in Bucharest a general meeting on energy, which, after the oil crisis, gave to many European physicists a taste for solar energy. This was also a rare occasion to meet a number of celebrated Russian physicists, including old Kapitza, who did not leave their country easily. Perhaps the renewed feeling of an energy crisis will stimulate again European industry to renew interest in long term research and EPS to take part in that move. But I should say that already at the end of my presidency, I could not prevent the secession of the opticians who, under André Maréchal's leadership, created a European union of their own! If specialised activities on teaching were a constant preoccupation, my efforts to create a Division of Biophysics were probably premature and failed. Also our efforts to create summer schools for countries of the south of Europe with help of UNESCO and the equivalent of Gordon Conferences as Europhysics meetings were, in the long run, superseded by more local efforts. Despite a secession of the liquid section, the Condensed Matter Division has flourished, including after my presidency a meeting in Pisa with a night long free-for-all discussion of Müller's recent results on cuprate superconductors! During my presidency, I was able to convince Martin Peter to ask for the help of EPS to distribute a yearly prize created by Hewlett-Packard. Under Casimir's chairmanship, I took part in the two first juries, which would make this prize one of the paths to the Nobel.

Having been involved in the development of synchrotron radiation in Orsay, I was interested in the possible extension as a larger European source. I organized a large EPS meeting in Copenhagen to present and discuss all the large experimental set ups in physics then planned or in construction in Europe. The synchrotron radiation source was presented for the first time in some details; and, after more studies by the European Science Foundation and inter-governmental agreements, it found its way to Grenoble as ESRF. Of the many other schemes, I especially remember a supercomputer just acquired by the British Meteorology Agency, planned to predict local weather more accurately in space and time. Owing to the turbulent nature of climate, this effort would, shortly after, be switched to more general studies of the hothouse effect. The potential interest of the Copenhagen meeting did not escape the Americans, and my friend David Lazarus tried, too late, to have the American Physical Society included. But these contacts led to agreements on common memberships of the two Societies. Despite my efforts, similar agreements failed with the Japanese Physical Society, despite my good contacts with a Society, which had celebrated its centenary in 1977, as the British and the French ones had done two years before.

For a new President of the East, I wished to recommend a Russian physicist and more especially Youri Sharvine, a low temperature experimentalist of Nobel potentialities whom I knew from a stay in Orsay and his activity in the EPS. I thought it would be a show of strength of our Society to choose a representative of the largest and most scientifically active country of Eastern Europe, but with a minimal representation and financial contribution to EPS. These delegates, all from the Russian Academy of Sciences, and especially Sharvine, were keen to develop the purely scientific contacts, which they found in EPS. Ursu, the flashier President of the Rumanian Physical Society, organiser of the recent Bucharest meeting, was preferred. The whole picture has changed: Sharvine is now dead and most of his solid state colleagues that we used to receive in Paris are now dispersed through the world. But I believe that the problem remains. ■

Conference announcements

An EPS/SFP Conference
The Conference on "Energy: A challenge for 21st century physics" will be held in Les Houches, France, 2-6 June 2008.

›››**Website:** www.sfpnet.fr
›››**E-mails:** J.L. Bobin, bobin@ccr.jussieu.fr or Thomas Hamacher, tih@ipp.mpg.de

X-08
The "21st International Conference on X-Ray and inner shell process" will be held in Paris, France, 22-27 June 2008. It covers a large field: astrophysics, atomic or nuclear physics, plasma or solid state physics, biophysics or chemical physics…

›››**Website:** http://x08.spectro.jussieu.fr/

EPAC'08
The 11th European Particle Accelerator Conference will be held in Genoa, Italy, 23-27 June 2008. This is the last of the series. It will be replaced by an annual IPAC series (International Particle Accelerator Conferences) rotating every three years from Asia (2010: Kyoto, Japan) to Europe (2011: Valencia, Spain) then America (2012: New-Orleans, USA).

›››**Website:** www.epac08.org

DIAMOND 2008
The International Conference "Diamond 2008" will be held in Sitges, Spain, 7-11 September 2008. It will review the latest scientific and technological aspects of vapour growth diamond, natural and synthetic diamond, and related materials such as carbon nanotubes, diamond-like carbon and wide gap nitrides particularly cubic boron nitride.

›››**Website:** www.diamond-conference.elsevier.com

EL 2008
The "14th International Workshop on Inorganic and Organic Electroluminescence" and the "2008 International Conference on the Science and Technology of Emissive Displays and Lighting" will be held from 9 to 12 September 2008 in the Grand Hotel Duca D'Este, 00011 Bagni di Tivoli, Rome, Italy

›››**Website:** www.EL2008.it
›››**E-mail:** EL2008@frascati.enea.it