

People and things

CERN Council

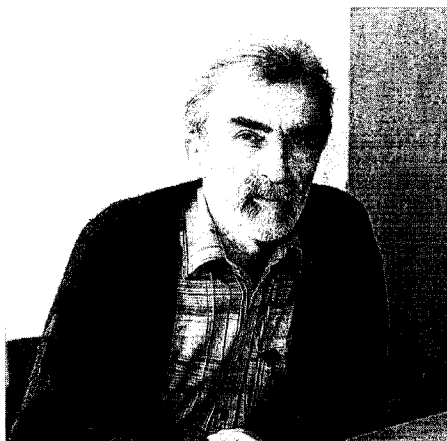
At the December meeting of CERN's governing body, the Council (which approved the LHC machine, see page 1) Paul Levaux was elected Vice President of Council and Marcello Gigliarelli Fiumi Chairman of the Finance Committee, both for one year, while Jacques Lefrançois of Orsay was elected to the Scientific Policy Committee. Within CERN, Lyndon Evans was appointed LHC Project Leader and Maurice Robin Head of Administration.

Eugene Paul Wigner 1902-95

One of the few remaining links with the birth of quantum mechanics was severed with the death on 1 January of Eugene Paul Wigner at the age of 92. His work was characterized by the introduction of unusual concepts and esoteric but powerful mathematical techniques which went on to prove their worth in the hands of other researchers, sometimes many years later.

Born in Budapest (his Hungarian name was Jenő Pal) in 1902, he first came to prominence as Erwin Schrödinger's assistant in Berlin in 1926-7 with his powerful treatment of quantum systems of many particles obeying the Pauli Exclusion Principle. Following a suggestion by his mathematician friend John von Neumann, he introduced the idea of mathematical group theory into quantum mechanics, where it has played a powerful role ever since. Wigner applied the techniques to the classification of atomic spectra and to nuclear structure.

Michał Turala becomes Leader of CERN's Electronics and Computing for Physics (ECP) Division, succeeding Pier-Giorgio Innocenti.



In Berlin and subsequently at Göttingen (under Max Born) he continued this work, and introduced the concepts of parity (left-right reversal) and time reversal as a special quantum mechanics operations, underlining the radical thinking this new physics required.

With Pascual Jordan, he invented a new quantum technique for describing field theory which, although not fully relativistic, opened the door to Dirac's standard treatment.

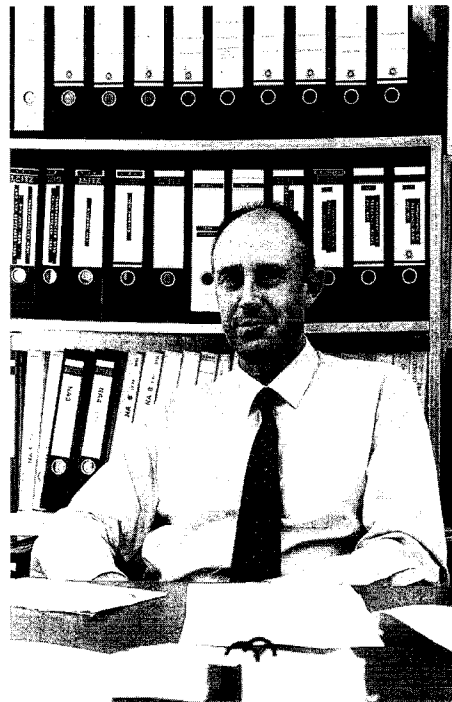
In the early 1930s he made major efforts to understand the nature of nuclear forces and in 1937 introduced the idea of isotopic spin (now called isospin) to describe the interrelation of proton and neutron forces in the nucleus.

He left Europe in 1935 for a post at Princeton. Apart from a spell in Wisconsin from 1936-8, he remained at Princeton for the remainder of his career.

In 1939, Wigner and Leo Szilard drafted the famous letter to US President Roosevelt, eventually signed by Wigner's friend Albert Einstein, pointing out the military potential of uranium fission.

Showered with honours, he was awarded (with Maria Göppert Meyer and Hans D. Jensen) the Nobel Physics Prize in 1963 for his pioneer

Giorgio Goggi becomes Leader of CERN's Particle Physics Experiments (PPE) Division, succeeding Jim Allaby.



work in helping to understand atomic and nuclear structure and nuclear forces. His sister, Margit, was Paul Dirac's wife.

On people

Vitaly Ginzburg of Moscow's Lebedev Institute and Yoichiro Nambu of Chicago share the prestigious Wolf Physics Prize for 1994-5. Ginzburg is cited for his important contributions to elementary particle physics, including recognition of the role played by spontaneous symmetry breaking and its analogy with superconductivity, and the discovery of the colour symmetry of the strong interactions. Nambu explained the connection between symmetry breaking and the lightness of the pion, and introduced SU3 as the symmetry of the colour quantum number, as well as carrying out pioneer work on relativistic string theory.

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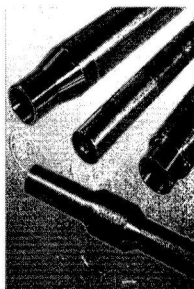
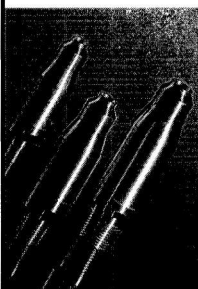
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Le support publicitaire pour équipements scientifiques et techniques

Le COURRIER CERN (CC) est la revue internationale traitant de l'actualité dans le domaine de la physique des hautes énergies. Distribuée aux spécialistes de tous les grands laboratoires du monde, actifs dans cette branche dynamique de la recherche fondamentale, le CC constitue la vraie source d'informations pour les chercheurs, ingénieurs, administrateurs, etc... Rédigé dans une langue simple et publié simultanément en français et en anglais, le CC est peu à peu devenu le moyen de communication entre les physiciens des particules élémentaires de l'Europe, des Etats-Unis, de la CEI, du Japon, de la République populaire de Chine et d'ailleurs.

Publié au CERN Suisse, il bénéficie de la collaboration de correspondants dans les laboratoires d'Argonne, Berkeley, Brookhaven, Cornell, Fermi, Los Alamos et Stanford (USA), d'Orsay et Saclay (France), de DESY et Karlsruhe (RFA), de Frascati (Italie), de Rutherford (Royaume-Uni), du PSI (Suisse), de Doubna, Novosibirsk et Serpoukhov (CEI), du KEK (Japon), de TRIUMF (Canada) et de Beijing (Chine).

Les crédits pour la physique des hautes énergies atteignent, en Europe, environ 1,8 milliard de francs suisses. Aux Etats-Unis, ils se montent à quelque 1,1 milliard de dollars.

Une annonce dans le COURRIER CERN est diffusée systématiquement parmi la plupart des spécialistes des grands laboratoires de recherche en physique des hautes énergies.

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Martha Krebs (left), Director of the Office of Energy Research, US Department of Energy, at CERN on 30 November accompanied at the L3 experiment at LEP by (left to right) then PPE Division Head Jim Allaby, John O'Fallon, Director of the Office's Division of High Energy Physics, and L3 spokesman Sam Ting.



Maurice Jacob proudly signs the official acknowledgement of his Légion d'honneur award after receiving his medal from CERN Council President and former French Science Minister Hubert Curien at CERN on 22 November. (Photo CERN 23.11.94/21)



Chen Ning Yang of the State University of New York at Stony Brook is awarded the prestigious Bower Science Prize for 1994. With Robert Mills, C.N. Yang developed in 1954 the 'Yang-Mills' formalism which underpinned much subsequent development in our understanding of gauge field interactions. Several years later, with T.D. Lee, he pointed out the possibility of parity violation in weak interactions. In 1957 Yang and Lee were awarded the Nobel Physics Prize. The Bower Science Prize was instituted in 1990.

After the formal retirement of Gustav-Adolf Voss last year, Dieter Trines becomes head of machines at the DESY Laboratory in Hamburg. Voss remains at DESY as an adviser. More details in our next issue.

More antiprotons at Fermilab

In December, Fermilab's antiproton source set a series of records, including a one hour antiproton stacking rate of $6.8 \times 10^{10}/\text{hr}$ and a stack of 207×10^{10} antiprotons.

Edoardo Amaldi Foundation

Nicola Cabibbo is the new President of the Fondazione Edoardo Amaldi. Founded in 1992 to commemorate one of Italy's leading scientists and CERN founding father, who died in 1989, the Foundation is based in Piacenza. It brings together local government, private firms and national agencies.

With the new appointment, the Amaldi Foundation intends to reinforce its character as a cultural entity

operating at the national level. Professor Cabibbo was a pupil and collaborator of Edoardo Amaldi, and is now a member of the Science Faculty at Rome University La Sapienza. President of the Pontifical Academy of Sciences, Nicola Cabibbo is also President of ENEA (the Italian National Agency for New Technologies, Energy and the Environment) and a fellow of the Accademia Nazionale dei Lincei.

In almost two years of activity, the Amaldi Foundation has launched many initiatives. Among the more significant can be counted the annual Amaldi Lectures, held at the Piacenza site of the Catholic University and given, in 1992, by the American physicist Wolfgang Panofsky ("Management and disposition of excess weapons plutonium"), in 1993 by Nobel Laureate for Physics Georges Charpak ("Multiwire cham-

DEUX POSTES D'ENSEIGNANTS

Le LPNHE est un laboratoire de recherche expérimentale comptant environ 100 personnes dont 40 physiciens. Il est engagé dans les expériences Delphi, Cat, H1, Nomad, Babar et le projet Atlas.

Deux postes permanents sont susceptibles d'être ouverts aux **concours pour la rentrée 1995** :

- un poste de "Maître de Conférences de 1^{ère} classe" de l'Université Paris 6, réservé au renforcement du groupe Atlas LHC en instrumentation,

- un poste de "Professeur de 2nde classe" de l'Université Paris 7.

Des informations complémentaires peuvent être obtenues auprès de :

Monsieur BANNER :
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Universités de Paris 6 et 7
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75252 Paris Cedex 05 Tél. : 44 27 41 79

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Interested candidates should send resume, including references, as soon as possible, but no later than February 28, 1995 to:

Dr. Sheldon Schultz
UCSD, Physics, 0319
9500 Gilman Drive
La Jolla, California 92093-0319
619-534-4078
Fax: 619-534-6301
e-mail: sschultz@ucsd.edu

FACULTY POSITION ACCELERATOR PHYSICS Indiana University

The Department of Physics at Indiana University-Bloomington invites applications for a tenure-track faculty position at the assistant professor level in accelerator physics, for an appointment to begin fall 1995, or later. The department has an established graduate program and is inviting applications from Ph.D. physicists with experience in accelerator design who are interested in joining a strong academic and research program in accelerator physics. Responsibilities include teaching and supervising graduate student research in accelerator physics at the Indiana University Cyclotron Facility or other major facilities. Indiana University is a major research institution with strong programs in accelerator-based nuclear and high energy particle physics and a 50-year history of forefront accelerator development and construction. Present facilities include a 200 MeV separated-sector cyclotron and a 500 MeV storage ring/synchrotron with electron cooling. A new injector system for the Cooler consisting of an RFQ and small synchrotron has recently been funded. Several senior faculty members in physics and IUCF staff members with experience in accelerator design also are involved in the accelerator physics program.

To apply please send a complete vita (including a description of research interests, accomplishments, and a list of publications), and arrange for a minimum of three letters of reference to be sent to:

Professor S.-Y. Lee
Chair, Search Committee
Department of Physics
Indiana University
Bloomington, IN 47405

Applications must be received by the closing date of February 27, 1995. Indiana University is an Equal Opportunity/Affirmative Action Employer.

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Inquiries for the rest of the world:

please see page III.

A symposium and subsequent proceedings at CERN on 7 December marked the 60th birthday of Ugo Amaldi.



Leading a UK industrial mission to CERN in November, Under-Secretary for Trade and technology Ian Taylor (right) is shown a UK-designed and built trigger processor board for the Aleph experiment at LEP by Mike Green of London's Royal Holloway and Bedford College.
(Photo CERN 18.11.94)



bers") and, in November 1994, by the then European Commissioner for Research Antonio Ruberti ("Cooperation in education and training").

The Foundation is also co-promoter with the European Physical Society of the Amaldi Prize for the best school thesis in physics. The Prize will be presented in Piacenza in 1995 and has attracted 50 entries from 11 different countries.

Foremost among the Foundation's 1995 commitments is the hosting in Piacenza of the Amaldi Conference, an international meeting of the world's scientific academies to discuss topics relating to disarmament.

Edoardo Amaldi was the moving spirit of these annual meetings and, on his death, the Conferences adopted his name. More than 50 scientists from all over the world are

Chen Ning Yang - Bower Science Prize



expected to be in Piacenza for the next meeting.

Harald Fritzsch receives the German Physical Society's medal for science writing from Society President H. G. Danielmeyer.
(Photo G. Groote, Bad Honnef)



PROFESSOR - ASSOCIATE PROFESSOR TENURE TRACK POSITIONS

ECOLE DES MINES DE NANTES DEPARTEMENT de PHYSIQUE SUBATOMIQUE et des TECHNOLOGIES ASSOCIEES (SUBATECH)

The Laboratoire de Physique Subatomique et des Technologies Associées (SUBATECH) at Ecole des Mines de Nantes, is searching for candidates with outstanding ability and experience in Nuclear Physics, associated detectors and software developments for appointment at the Professor / Associate Professor levels. The SUBATECH Laboratory is a joint Laboratory of the University of Nantes, Ecole des Mines de Nantes, Centre National de la Recherche Scientifique (CNRS/IN2P3). It has developed experimental programs in nuclear physics at GANIL, CERN-SPS and CERN-LHC as well as applied research for nuclear waste and environment problems.

The candidate is expected to participate to a research program as well as to implement a teaching program and industrial relationships for engineering students. Basic knowledge in french is required.

Applicants are requested to submit CV, research accomplishments and interests, as well as names of five referees to:

Pr. Daniel ARDOUIN
Directeur du Laboratoire SUBATECH
ECOLE DES MINES DE NANTES
3, rue Marcel Sembat
44049 NANTES cedex 04

University of Copenhagen

Niels Bohr Institute
for

Astronomy, Physics and Geophysics

Professorship in Theoretical Nuclear Physics

A professorship in theoretical nuclear physics at the Niels Bohr Institute will become available as of July 1, 1995.

The new professor must have a broad theoretical background, and is expected to play a leading role in the development of nuclear physics. Nuclear physics is conceived as ranging from nuclear structure and reactions to hadronic physics and phenomenological QCD. The successful candidate must have contributed with original and outstanding research within these broad confines of nuclear physics and must have the ability to build a research group.

The nuclear theory group at the Institute works in an integrated way with the NORDITA nuclear theory group. Together they cover the subjects nuclear structure, heavy ion physics near the Coulomb barrier, hadronic structure and QCD, hot and dense nuclear matter and high energy nucleus-nucleus collisions as well as atomic clusters. The general theme could be termed many-body systems under extreme conditions. There is an active international guest program, and the Institute hosts centers in theoretical astrophysics and the physics of non-linear phenomena and it has a very active group in theoretical high energy physics. Further there are experimental programs in nuclear structure and high energy heavy ion collisions.

It is considered very important that the new professor in nuclear physics works in close contact with the other theory groups at the Institute and NORDITA and with the experimental nuclear physics groups.

The chosen candidate is expected to take part in the teaching activities of the Institute at all levels, including supervision of graduate students. It is expected that the new professor will take the lead in creating a new course in nuclear theory at the graduate level. The language of instruction for undergraduate courses is Danish, but English will be accepted for the first two years of the appointment.

The application must include a *curriculum vitae* and a complete list of publications with a special indication of which publications are considered most relevant for this position. Information about teaching experience must also be enclosed.

The applicants' qualifications will be evaluated by a specially appointed Committee. The entire report of the Evaluation Committee will be sent to all applicants and must be treated as confidential. The Evaluation Committee may ask for supplementary material, which the applicant then must provide in the requested number of copies.

Information about research plans, facilities and staff may be obtained from the Director, Professor Ole Hansen, Niels Bohr Institute for Astronomy, Physics and Geophysics, Blegdamsvej 17, DK-2100 Copenhagen Ø, Denmark; telephone: +45 35325292, fax: +45 35431087, E-mail: oleh@nbi.dk.

The professorship is a tenured position under the Ministry of Education. The annual salary is approximately 415,000 DKK after contributions to the pension scheme.

The application, marked "211-45/94-5207" and written in English, must formally be made to the Rector of the University of Copenhagen and mailed to the Faculty of Science, Blegdamsvej 3, DK-2200 Copenhagen N, Denmark. Applications, in order to be considered, must have been received by the Faculty of Science no later than March 15, 1995.

Three copies of the application, and in addition three copies of a brief outline of proposed research, should be mailed to the Director of the Niels Bohr Institute for Astronomy, Physics and Geophysics. No further material should be forwarded until requested.



DESY announces several

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Interested persons, who have recently completed their Ph.D. and who should be younger than 32 years, are invited to send their application including a résumé and the usual documents (curriculum vitae, list of publications, copies of university degrees) until 31 March 1995 to DESY, Personalabteilung - V2 -, Notkestr. 85, D-22607 Hamburg. They should also arrange for three letters of reference to be sent until the same date to the address given above.

As DESY has laboratories at two sites, in Hamburg and in Zeuthen near Berlin, applicants may indicate at which location they would prefer to work.



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ANNOUNCEMENT

The Group of Applied Physics announces an opening,
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Applications, including a curriculum vitae and a list of publications, should be sent by March 1, 1995 to the Dean of the Faculty of Science, 30, quai Ernest-Ansermet, CH-1211 Geneva 4, Switzerland, where additional information on the job description and working conditions may be obtained.

N.B. In an effort to involve both men and women in teaching and research, the University hopes to receive a greater number of applications from women.

Rudolf Muradian (right) has been appointed a member of the Pontifical Academy of Sciences. Well known for contributions to particle, nuclear and mathematical physics as well as astrophysics, much of which has been done at the Bogoliubov Laboratory of Theoretical Physics, Joint Institute for Nuclear Research, Dubna, and the Byurakan Astrophysical Observatory in Armenia. He is seen here with Mons. Renato Dardozzi, the Pontifical Academy of Sciences' Director of Chancellery, and the Pope.



Muons from Japanese investment in UK Laboratory

In November, first muons were produced from a new £10 million beamline at ISIS, the world's most powerful pulsed neutron and muon source at the UK Rutherford Appleton Laboratory.

This is the outcome of a 1990 accord between RIKEN (the Japanese Institute of Physical and Chemical Research) and the then SERC (UK Science and Engineering Research Council) under which RIKEN funded construction of the muon facility at ISIS, built using Japanese and UK expertise and exploited equally by Japanese and UK scientists.

After evaluation and tests, Japanese scientists will embark on a research programme including muon-catalysed fusion using negative muons, while UK researchers will concentrate on using positive muons in a range of experiments to probe the microscopic magnetism of a variety of materials, including high temperature superconductors.

German science writing award

Distinguished Munich theorist and physics author Harald Fritzsch was recently awarded the German Physical Society's medal for science writing. His books, translated into



Inside the 'FermiShelter' a prototype modular tornado shelter developed by Fermilab and a local firm, North Star Chicago Precast through a US Department of Energy Cooperative Research and Development Agreement.

many languages, have strengthened the awareness of the message of basic scientific research.

Meetings

DAFNE 95, the second workshop on physics and detectors for the DAFNE F-factory at Frascati will be held on April 4-7 1995, with the aim of reviewing the status of theory and experiments. Topics will include: CP Violation, Kaon Interactions and Decays, Low Energy Hadron Spectroscopy and Tests of Quantum Mechanics. The workshop will be based on invited talks and roundtable discussions. Attendance will be around 150 persons. For information Email DAFNE@IRMLNF.

The Seventh Lomonosov Conference on "Problems of Fundamental Physics" organized by the Interregional Centre for Advanced Studies (Moscow), Skobeltsyn Institute of Nuclear Physics and the Faculty of Physics of the Moscow State University, the Joint Institute for Nuclear Research (Dubna), the Institute for High Energy Physics (Protvino) and the Institute for Nuclear Research (Moscow) will be held at the Moscow State University, Moscow, Russia from 24 August to 30 August. The programme includes foundations of quantum mechanics, theory of space-time and frontiers of particle physics. Further information can be obtained from the Organizing Committee: studenik@srdlan.npi.msu.su

CERN Courier contributions

The Editor welcomes contributions. These should be sent via electronic mail to courier@cernvm.cern.ch

Plain text (ASCII) is preferred. Illustrations should follow by mail (CERN Courier, 1211 Geneva 23, Switzerland).

Contributors, particularly conference organizers, contemplating lengthy efforts (more than about 500 words) should contact the Editor (by e-mail, or fax +41 22 782 1906) beforehand.

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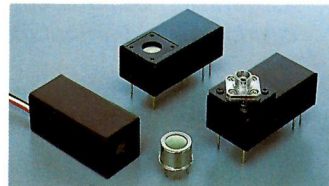
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