

CONSEIL D'ADMINISTRATION DE LA CAISSE DE PENSIONS

Le Conseil d'administration a tenu le 13 novembre sa vingt-deuxième réunion.

A cette occasion, il a approuvé le budget des coûts de fonctionnement de la Caisse pour l'exercice 1992, qui s'élève à FS 1 750 000.-. Ce budget sera soumis au Comité des finances en décembre. Selon diverses comparaisons, il apparaît que les coûts de fonctionnement administratif de la Caisse se situent au-dessous de la norme en la matière, notamment dans les caisses capitalisées suisses.

Le Conseil d'administration a renouvelé pour un an le mandat des experts de la Commission de placement. Il a également pris connaissance du contrat relatif à la gestion des biens immobiliers de la Caisse.

En matière d'information, l'Administration de la Caisse a préparé un projet de décompte de droits à pension qui a reçu l'approbation du Conseil d'administration. Il est prévu que chaque membre de la Caisse recevra un tel décompte dans le courant du mois de février 1992. Ce faisant, le Conseil d'administration donne suite à diverses suggestions émises en vue d'améliorer la communication entre la Caisse et ses membres.

Un point très important, l'autonomie de fonctionnement de la Caisse, figurant à l'ordre du jour de la réunion a dû être reporté pour des raisons indépendantes de la volonté du Conseil d'administration. Il est prévu que ce dernier tiendra le 27 novembre une séance extraordinaire consacrée à l'examen de cette question.

Le Conseil d'administration a pris note avec regret du décès de M. L. Chevret, bénéficiaire d'une pension de retraite.

GOVERNING BOARD OF THE PENSION FUND

The Governing Board held its twenty-second meeting on 13 November.

At that meeting it approved the budget for the Fund's operating costs for the financial year 1992, amounting to SFr. 1 750 000.—. This budget will be submitted to the Finance Committee in December. Various comparisons show that the administrative operating costs of the Fund lie below the average, especially among Swiss capitalised funds.

The Governing Board renewed the terms of office of the experts on the Investment Committee for a year. It also took note of the contract concerning the management of the Fund's real-estate assets.

In the information field, the Administration of the Fund has prepared a draft individual breakdown of pension rights which was approved by the Governing Board. Each member of the Fund is to receive such an individual breakdown in the course of February 1992. In so doing the Board is acting upon various suggestions aimed at improving communications between the Fund and its members.

Discussion of one very important item on the agenda for the meeting, the Fund's operational autonomy, had to be postponed for reasons beyond the Governing Board's control, and an extraordinary meeting to deal with this matter is scheduled for 27 November.

The Governing Board regretfully took note of the death of Mr L. Chevret, beneficiary of a retirement pension.

SEMINARS SEMINAIRES

Monday 2 December

ISOLDE EXPERIMENTS COMMITTEE

Open session

at 10.00 hrs – Council Chamber

1. *Introductory remarks.*
2. *Proposal: Diffusion of Au and Pt in amorphous silicon (Stuttgart-CERN Collaboration; ISC 91-22/P12; W. Ulfert).*
3. *Proposal: Grain boundary diffusion in oriented bicrystals of metals and alloys (Münster Collaboration; ISC 91-25/P14; Chr. Herzig).*

4. *Proposal: Direct measurement of DX-center related lattice relaxations in $Al_xGa_{1-x}As$ compounds (Konstanz-Bonn Collaboration; ISC 91-28/P16; H. Hofsäss);*
and

Proposal: Alpha-emission channeling studies of the interaction of Li with defects in Si and diamond (University of Konstanz; ISC 91-29/P17; H. Hofsäss).

5. *Proposal: The electronic structure of impurities in semiconductors (Aarhus-Zürich Collaboration; ISC 91-30/P18; J.W. Petersen).*
6. *Proposal: Passivation of electrically active centers by hydrogen and lithium in semiconductors (Konstanz-*

Erlangen-Bonn-Lisboa-CERN Collaboration;
ISC 91-31/P19; D. Forkel).

7. Proposal: ^{111m}Cd - and ^{199m}Hg -derivates of blue oxidases (Garching-Martinsried Collaboration; ISC 91-32/P20; T. Butz).
8. Proposal: Measurements of electric quadrupole moments of neutron-deficient Au, Pt, and Ir nuclei with NMR-on in hcp-Co (CERN-Munich Collaboration); ISC 91-34/P22; E. Hagn).
9. Proposal: The structure of ground states and isomeric states of bromine isotopes as function of neutron number (Bonn-CERN-Lyon-NICOLE-ISOLDE Collaboration; ISC 91-5/P3; P. Herzog).
10. Proposal: Residual neutron-proton interaction in the doubly-odd nuclei: a first step towards a study of dynamical effects (Orsay (I.P.N.)-Buenos Aires-Lyon-Strasbourg-CERN-Orsay (C.S.N.S.M.) Collaboration; ISC 91-21/P11; J. Sauvage).
11. Proposal: Meson-exchange enhancement of the first forbidden $0^+ \leftrightarrow 0^-$ beta transitions (Strasbourg-Lyon-IN2P3-Brookhaven Collaboration; ISC 91-27/P15; G. Walter).
12. Proposal: Towards the proton drip-line in Tl nuclei around $A=180$ (Lyon-CERN Collaboration; ISC 91-36/P23; A. Emsallem).

Closed session

Monday 2 December following the Open Session,
6th floor Conference Room, continuing on Tuesday
3 December.

Monday 2 December

COMPUTING SEMINAR

at 10.00 hrs – TH Conference Room

**My supercomputer is faster, and better and
cheaper than yours!!**

by W. Derek ROBB / Cray Research, Inc.

The presentation will focus on technology and architecture issues that affect the design of supercomputing systems through the 1990s. Specific examples based on future Cray Research products will be presented. Supercomputing systems can be analysed in terms of their four major components-processors, memory, network interconnect and I/O bandwidth. Thus, for certain problems, a CRAY Y-MP16, a SIMD massively parallel machine or a network of 100 RISC workstations can be viewed as viable supercomputing systems. The question as to which is best is one of performance, ease of programming and system administration and cost. The aim of this presentation is to show that there will not be a 'best' solution based on one particular technology and architecture. Rather it will be an effective combination of products. Technology trends are showing continued exponential performance capability. Examples will be shown to substantiate this point. The primary burden will be on users and algorithm developers to develop and modify applications so that they can keep up with this performance growth. Finally, the cost trends to both

develop and use various supercomputing technologies will be analysed.

Derek Robb is the Y-MP Product Director at Cray Research, Inc.. In this capacity he is responsible for planning Cray Research's general purpose supercomputing products. Before assuming his current position D. Robb held positions as Director of University Marketing and Director of Applications Development. D. Robb received his Ph.D. in Theoretical Physics from the Queen's University of Belfast, N. Ireland in 1971. From 1972 through 1975 he was a Postdoctoral Fellow at the Joint Institute for Laboratory Astrophysics at the University of Colorado. From 1975 until 1980 he was a Staff Scientist in the Theoretical Division at the Los Alamos National Laboratory. D. Robb joined Cray Research, Inc. in 1980.

Monday 2 December

AC SEMINAR

at 11.00 hrs – AT Auditorium

bldg 30 / 7th floor

The UNK Project: Status and Plans

by M. MIKHEEV / HEP, Serpukhov, USSR

The storage and accelerating complex UNK is under construction at IHEP, Protvino, USSR. It will combine a 400 GeV conventional and a 3 TeV superconducting accelerator. At present it is planned to bring the complex into operation as a collider around mid 1997. The status of the construction and a short description of subsystems will be given.

Mardi 3 décembre

PRESENTATION TECHNIQUE

09.30-12.00 h & 14.00-16.30 h – bât. 17/1-007

Novitas Automation SA (CH) présente en démonstration
Intouch, logiciel, et Microtouch, écran tactile.

- INTOUCH, logiciel pour la génération d'applications destinées à la conduite de procédés industriels. Il bénéficie de l'environnement Windows et permet la création de programmes de supervision, gestion des alarmes, l'enregistrement d'événements et de tendances.
- MICROTOUCH, écran tactile, résolution 1024×1024 , verre résistant, peut être installé sur moniteur 9" à 27", bombé ou plat, offre des outils de logiciels multiples Touch Driver, Microcal, Mouse Emulator Touch Windows Driver, Touch Amiga Driver, Apple Driver.

Langues: français, allemand selon demande

Renseignements: M. Diraison / FI / 4585

Tuesday 3 December

PRESENTATION

at 10.30 hrs – CN Auditorium

bldg 31/3-005

VICbus - CAMAC interface by CES

by Creative Electronic Systems SA

CES will present the newest addition to their family of VICbus (VME Inter-Crate Bus) compatible devices: the VCC2117 CAMAC Crate Controller.

In addition, an update on the latest developments in the CES CISC and RISC processor modules will be given.

Information : Chris Parkman / ECP

Tuesday 3 December

CERN COLLOQUIUM

at 16.30 hrs – Auditorium*

Inertial fusion : A possible contribution of accelerator technology to the world's energy problem ?

by Carlo RUBBIA / Director-General, CERN

* Tea & coffee will be served at 16.00 hrs

Wednesday 4 December

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Are three particles with unit electric charges bound?

by André MARTIN / CERN

We know that systems like $p\bar{e}^-$ are bound, and that $p\bar{\mu}^-$ is NOT bound, so that the binding depends on the masses of the particles. We propose a new general approach to this problem in which we consider the case of arbitrary masses and give a final solution to some longstanding problems, like the one of proving rigorously that the system $p\bar{e}^+$ is not bound. Generalisations to unequal electric charge units are sketched.*

* A. Martin, J.M. Richard, T.T. Wu

Wednesday 4 December

COMPUTING SEMINAR

at 16.00 hrs – CN Auditorium
bldg 31/3-005

Where are we with Gbit/s networks?

by Brian CARPENTER / CERN/CN-CS

The constant definition of a high speed computer network is one which runs ten times faster than what is available at present. We are now in the era of 100 Mbit/s local networks and (in Europe) 2 Mbit/s wide-area networks. A new generation of hardware and software technology is needed to push bandwidth above 100 Mbit/s, say up to the maximum PTT-standard speed of 2.4 Gbit/s. However, this is one million times faster than a traditional modem speed – we have to justify this by realistic and useful applications, either by aggregation of traffic from thousands of small applications, or by individual applications needing say 100 Mbit/s each. The seminar will outline possible applications but will largely

concentrate on technology aspects. The emphasis is on computer interfacing and software aspects rather than on transmission technology.

Thursday 5 December

TECHNICAL PRESENTATION

10.00-17.30hrs – bldg 17/1-007

Computer Controls AG presents: P-CAD V 5.0, electronic CAD software, the shortest way from concept to reality, DOS-Extender support, online design rule check from CAD/CAM EDA (USA); Graphtec Thermotransfer plotter, high resolution, high speed, low cost, A3 size, 400 dpi, thermal print head, 16 tone black and gray plotting from Graphtec Corp.(J); Elsa Computergraphics, fastest graphic adapters for P-CAD, AutoCAD, TIGA etc. resolution up to 1280 x 1024, hardware zoom in less than 1 sec. user support menu window, single or dual screen support from Elsa GmbH (D); Sony 20" Monitor, 20" black Trinitron tube, resolution 1280x1024 from Elsa GmbH (D); Info Byte Computer, 386 or 486 CPU, ISA or EISA, 4-32 MB RAM, 64 / 128 kB Cache from InfoByte Datatrans AG (CH).

Languages: English, French

Information : M. Diraison / FI / 4585

Thursday 5 December

PRESENTATION

at 10.00 hrs – CN Auditorium
bldg 31/3-005

CADD5

by Prime Computervision

CADD 5 now available, offers a new, fully customizable user interface, a parametric design module, a sketcher using variational and constraint geometry for free form profiles used to create 3D geometry, view and markup software using X windows, and feature based modeling.

The highlights of CADD 5 include:

- New user interface
- Full on-line help
- Parametric capability, permitting choice of geometry
- Choice of wireframe or surface modeling and geometry with intergration of 3D parametrics

Information: Roland Messerli / CN

Thursday 5 December

PRESENTATION

at 14.00 hrs – PS Auditorium
bldg 6 / 2-024

Latest Developments in Floating Point DSP and Parallel Processing on the VMEbus

by Rob SHADDOCK / Data Beta

The presentation will discuss the latest developments in Real-time Digital Signal Processing using the floating point devices

from Motorola (DSP96002) and Texas Instruments (TMS320C40). Topics covered will include some aspects of the device architectures and their optimal implementation on the VMEbus. Software development, building and debugging microprocessing and parallel processing architectures using the above devices will also be discussed. Other subjects will include implementation issues such as data throughput and connection to real world analog signals, and reference will be made to products designed and manufactures by Data Beta. Information : Chris Parkman / ECP

Thursday 5 December

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Precise determination of the LEP beam energy by resonant depolarization

by Alain BLONDEL / Ecole Polytechnique de Palaiseau (for the LEP Polarization Collaboration)

A transverse beam polarization of around 10% is reproducibly observed in LEP. This is sufficient to measure the spin precession frequency, thereby the beam energy, by the resonant depolarization technique, with a precision of $O(10^{-5})$. The experimental techniques, the experiments performed to validate the results, and implications for physics will be discussed.

* Tea and coffee will be served at 16.00 hrs.

Friday 6 December

PLENARY ECFA MEETING

at 09.30 hrs – Council Chamber

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| 09.30 | 1. | Approval of the Draft Minutes of the Forty-ninth Plenary ECFA Meeting |
| | 2. | Approval of the Draft Agenda |
| 09.35 | 3. | Chairman's Report |
| 10.00 | 4. | Report on the B $\bar{B}$ Working Groups (R. Eichler) |
| 10.45 | 5. | Report on CLIC Activities (W. Schnell) |
| 11.15 | | Coffee |
| 11.45 | 6. | Status of HERA |
| 12.15 | 7. | HEPNET Requirements Committee Report (M. Delfino) |
| 13.00 | | Lunch |
| 14.00 | 8. | Status of the LHC Programme (C. Rubbia) |
| 15.00 | 9. | Progress in LHC Design and Magnets (G. Brianti) |
| 15.30 | | Coffee |
| 16.00 | 10. | Discussion on the ECFA Recommendation on LHC |
| 16.30 | 11. | Any Other Business |

Friday 6 December

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Electroweak radiative corrections at HERA

by Hubert SPIESBERGER / II. Inst. für Theoretische Physik, University of Hamburg

I will review the status of radiative corrections calculations at HERA. The special features of electroweak radiative corrections for deeply inelastic lepton nucleon scattering will be discussed. Moreover, I will show that the measurement of radiative events at HERA offers some possibilities to study interesting physics questions, such as the measurement of anomalous WW γ couplings, or the study of the low Q^2 behaviour of structure functions.

Monday 9 December

PRESENTATION

at 10.00 hrs – CN Auditorium
bldg 31/3-005

Economic VMEbus Solutions on Single Height by PEP Modular Computers GmbH

PeP will present a broad range of economic CPUs and communication modules, all running under OS-9, as well as a new technology to boost the performance of the VMEbus. The presentation will include an introduction to PEP, an overview of their products both hardware and software, as well as a discussion of 'Autobahn', a new technology to achieve 400 Mbyte/s transfers on a VMEbus backplane.

Information : Chris Parkman / ECP

Tuesday 10 December

TECHNICAL PRESENTATION

09.30 to 17.00 hrs – bldg 6/2-004

LeCroy Corp. of New York + Geneva, will exhibit the new products from their range of fast Data Acquisition Instruments and Digital Oscilloscopes.

Languages : English, French, German, Italian

Information : M. Diraison / FI / 4585

Tuesday 10 December

PRESENTATION

at 14.00 hrs – PS Auditorium
bldg 6/2-024

Presentation of some new optical measurement techniques : Strain analysis, deformation / vibration analysis, non-destructive testing

by Eiof VIKHAGEN from SINTEF – The Norwegian Inst. of Technology

Information : Melvin Ellefsplass / MT-ESH / 4789

Wednesday 11 December

PRESENTATION

at 10.00 hrs – CN Auditorium

bldg 31/3-005

**Diagnostic Assistant : a G2 Real-Time Expert
System Product**

by Gensym

Information : M. Sendall / ECP

Thursday 12 December

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium

**Is there evidence for gluonium from charmonium
decay ?**

by Clemens HEUSCH / University of California at
Santa Cruz

FOR INFORMATION / POUR INFORMATION

LAPP

Laboratoire d'Annecy de Physique des Particules

Chemin de Bellevue

BP 110

F – 74941 Annecy-le-Vieux

Tél. 50 23 32 45

Vendredi 6 décembre

SEMINAIRE LAPP

à 10.45 h – Amphithéâtre LAPP

Physique e^+e^- à 500 GeV

par P. CHIAPPETTA / Marseille

Information : Sylvie LEES-ROSIER, LAPP / ext. 328 /
SROSIER@FRCPN11

TRAINING AND EDUCATION ENSEIGNEMENT

ENSEIGNEMENT GENERAL

Tél. 5811

Jeudi 5 décembre

de 13.00 à 13.30 h – Amphithéâtre

Science pour tous

par Rafel CARRERAS

*La dernière séance de l'année aura lieu le 12 décembre.
Après les Fêtes, les conférences reprendront le 9 janvier.*

*We will review the expectations for Standard Model Physics
at LHC. The topics covered are : total and elastic cross-
sections, jet and direct photon production, W,Z and WZ, W-
 γ pair production, top quark physics, Higgs searches, b-
physics and possibilities for CP violation studies. We discuss
the expected signals and backgrounds, the geometrical and
kinematical acceptances required, background suppression
methods etc.*

*The lectures are largely based on the studies done in the
various working groups set up for the ECFA/LHC Workshop
in Aachen in October 1990.*

ACADEMIC TRAINING

Tel. 2844

9, 10, 11 & 12 December

11.00-12.00 hrs – Auditorium

Standard Model physics at LHC

by D. DENEGRI / Saclay & CERN-PPE

Lectures series for Postgraduate students

2, 3, 5 & 6 December

11.00-12.00 hrs – Auditorium

Beyond the Standard Model

by L. IBANEZ / CERN-TH