

CONSEIL D'ADMINISTRATION DE LA CAISSE DE PENSIONS

GOVERNING BOARD OF THE PENSION FUND

La modification No 10 aux Statuts et Règlements de la Caisse de pensions, relative aux sommes fixes et allocations modifiées à la date du 1.1.1994, peut être obtenue auprès des secrétariats de division ou, pour les pensionnés, directement auprès de l'Administration de la Caisse (tél. 767 27 38/44 21).

Amendment No. 10 to the Rules and Regulations of the Pension Fund relating to fixed sums and allowances modified as from 1.1.1994 can be obtained from Divisional secretariats or, by pensioners, directly from the Administration of the Fund (tel. 767 27 38/44 21).

SEMINARS SEMINAIRES

Monday 21 February

TECHNICAL PRESENTATION

10.00-17.00 hrs – Demo Bus, car park, bldg 867, Prévessin site

14.00-16.00 hrs – Lecture, auditorium, bldg 864, 1st floor

Industrial Control Systems and Engineering Practices
for users of the control systems, maintenance people and people responsible of new projects and upgrades
by Valmet Automation Inc. & IVO International Ltd (SF)

Valmet Automation Inc. is an automation systems manufacturer. Products cover a complete range of industrial hardware and software from low-level controls and logic functions to high-level process optimization and management functions.

IVO International Ltd has been designing and installing automation systems at its own power plants over 60 years and, for 20 years, supplying systems to power and energy industry clients worldwide. With 1300 engineers IVO International is today the leading engineering office in the energy sector in Finland.

Presentations about industrial solutions (over 1000 processes automated worldwide):

- industrial automation engineering practices
- easy to learn and use human interface, special features: user assistance tools for disturbance handling
- reduced maintenance costs through guaranteed up-time and powerful diagnostics features
- efficient development new applications using automated tools to generate code from Autocad-drawings to the VME-boards (both user interface and controls)

Fully equipped bus with full-scale systems available gives the possibility of hands-on presentations.

Language : English

Information : M. Diraison / FI-A / 4585

Tuesday 22 February

TECHNICAL PRESENTATION

10.00-17.00 hrs – Demo Bus, car park, bldg 63, Meyrin site

14.00-16.00 hrs – Lecture, Auditorium, bldg 500, 1st floor

Industrial Control Systems and Engineering Practices
for users of the control systems, maintenance people and people responsible of new projects and upgrades
by Valmet Automation Inc. & IVO International Ltd (SF)

See details under Monday 21 February

Language : English

Information : M. Diraison / FI-A / 4585

Tuesday 22 February

CERN COLLOQUIUM

at 16.30 hrs – Auditorium*

Time travel ?

by R. JACKIW / MIT

To travel into the past, to observe it, perhaps to influence it and correct mistakes of one's youth has been an abiding fantasy of mankind for as long as we have been aware of a past. I shall describe some recent scientific investigations on this topic.

* Tea & coffee will be served at 16.00 hrs.

Wednesday 23 February

CERN COMPUTING COLLOQUIUM

at 09.30 hrs – Auditorium

The QCD Teraflops Project

by Claudio REBBI / Boston University

Very recently a dedicated group of physicists and computer scientists has submitted to the U.S. Department of Energy, National Science Foundation and Advance Research Projects Agency a proposal to develop and build a supercomputer capable of a sustained performance in excess of one teraflops for QCD lattice calculations. In this colloquium I will review the motivation for building such a machine and its present architectural design and I will discuss the applications that could be run on it.

Claudio Rebbi studied in Turin and did research in particle theory at several institutions, including CERN and the Brookhaven National Laboratory, before moving to Boston University, where he is professor of physics and director of the Center for Computational Science. He was one of the

founders of the Division of Computational Physics of The American Physical Society and has been the organizer of several colleges and conferences on computational physics.

Wednesday 23 February

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Effective chiral Lagrangians from lattice QCD

by Claudio REBBI / Boston University

I will present a framework for calculating the parameters of effective chiral Lagrangians proceeding through the derivation of a lattice chiral Lagrangian as an intermediate step. The lattice chiral Lagrangian will be explicitly constructed in the strong coupling, large N_c approximation and a possible procedure for deriving it in the continuum scaling domain will be discussed.

Jeudi 24 février

SEMINAIRE DE BASE MT

à 09.00 h – Amphithéâtre AT, bât. 30, 7^e étage

Composants et fonctions principales des accélérateurs

Septum magnets

par R. KEIZER / CERN-SL

Thursday 24 February

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Precision electroweak physics at the SLD/SLC with a polarized e^- beam : measurement of A_{LR}

by P.C. ROWSON/ Columbia University, New York

The SLAC Linear Collider and the SLD detector have been used to obtain a sample of approximately 50,000 hadronic Z boson decays due to e^+e^- collisions at a center of mass energy of 91.26 GeV and which have been produced with a 63% longitudinally polarized electron beam. The asymmetry in the production of Z bosons with respect to left and right-handed electrons (A_{LR}) has been measured precisely, which due to the sensitivity of this quantity to the electroweak mixing parameter, allows a determination of $\sin^2\theta_w^{\text{eff}}$ to ± 0.0010 . This result constitutes the most precise measurement in a single experiment of the weak mixing angle yet performed. We will discuss the unique features of this method, including the production and transport of the polarized beam, polarimetry, and the control of systematic effects, as well as the implications of our result as a test of the standard model.

* Tea & coffee will be served at 16.00 hrs

Friday 25 February

TECHNICAL PRESENTATION

09.00-12.00 hrs in English

14.00-16.30 h en français

bldg 73/2-027

Talk about the 3rd International Symposium on Fluid Sealing

Exposé au sujet du 3e Colloque International sur l'Étanchéité

by W. L. Gore & Associates GmbH (D)

W. L. Gore & Associates is the manufacturer of high performance GORE-TEX® gasket based on ePTFE (expanded

polytetrafluoroethylene). The outstanding characteristics of this material are:

- universal chemical resistancy: pH 0 - 14
- wide thermal operation range: applications from 3K to 588K are possible
- low leak rates: λ of 10^{-6} mg/ms can be achieved
- no contamination: clean, white gasket, FDA approved
- asbestos free: 100% ePTFE with high strength and minimal creep
- high conformability: seals excellently on rough sealing surfaces

During the exhibition we would like to show you this gasket material in the form of cords, sheets, cut gaskets and insertable gaskets. GORE-TEX® gaskets are already tested and approved by many large companies worldwide. At the presentations we would like to share information about new test methods from MTI in the United States which include leak rates in flange and gasket design according to a new PVRC design code. Under this test programme GORE-TEX® gaskets were shown to have the lowest leak rates.

Language : English in the morning, français l'après-midi

Information : M. Diraison / FI-A / 4585

Friday 25 February

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

The colour dipole model at HERA

by Leif LONNBLAD / CERN

In this talk I will present the Colour Dipole Model for QCD cascades in e^+e^- annihilation and deep inelastic scattering, and compare the predictions of the model with recent data from the two experiments at HERA.

Monday 28 February

PPE SEMINAR

at 16.30 hrs – Auditorium

Precise measurements of the electroweak parameters from the hadronic and leptonic line-shapes of DELPHI

by Theodore TODOROV / Centre de Recherches Nucléaires, Strasbourg

The LEP energy scan performed in 1993 gives the possibility to measure the mass and the width of the Z^0 with about twice higher accuracy compared to the previous years of data taking. The problem of keeping experimental systematic uncertainties below the level of the statistical errors becomes more difficult. The measurement of the DELPHI hadronic and leptonic total cross-sections will be described in detail. All relevant sources of uncertainties will be discussed. The relative luminosity between the scan points is measured to high precision by a compact luminometer with a very large visible cross-section. The statistical error on the luminosity thus becomes negligible. Close to final DELPHI results will be combined with the best available LEP energy measurements to give values of M_Z , Γ_Z , σ_0 and R_1 .

Wednesday 2 March

PS SEMINAR

at 11.00 hrs – PS Auditorium

From mainframes to the desktop

by Christopher Jones / CERN-CN

Wednesday 2 March

COMPUTING SEMINAR

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

Is your neural net really a black box?

by Georg STIMPFL / CERN-PPE

Wednesday 2 March

ISOLDE SEMINAR

at 16.00 hrs – TH Conference Room

The Gamma Ray Induced Doppler Broadening (GRID) technique and its applications.

by J. JOLIE / University of Fribourg, Switzerland

Tuesday 15 March

WORKSHOP ON VMEBUS EXTENSIONS FOR PHYSICS

09.00-17.15 hrs – AT Auditorium
bldg 30, 7th floor

Purpose : Since its inception in 1981, VMEbus has found widespread use as a modular computer system in data acquisition and control applications in all branches of research. In recent years there has been an increasing tendency to extend its use into the "front-end" where the practical requirements

on the standard tend to be different. Several implementations, large and small, have been made or are planned using in-house extensions to VMEbus to cover these requirements.

The need to extend the standard has been felt in other areas of application as well. Consequently, the ANSI Open Technology Standards Group, the "guardian" of the standard, has established the "VME64 Extensions Committee". This committee is examining the requirements and available options for extra power supplies, larger board formats, supplementary connectors, new protocols, additional serial buses and so on.

The sponsors of this workshop (ESONE - European Studies on Norms for Electronics, UGMS - the CERN User Group on Microprocessor Support, and VSC - the CERN VMEbus Steering Committee) therefore invite associated research institutes and companies to take part in a one-day event to be held at CERN (Geneva, Switzerland) on the future of VMEbus in physics applications. The aim of this workshop is to formulate the requirements of VMEbus users in the physics community in order to provide input to the standards bodies and to decide whether a further course of action towards the definition of specific "profiles" for VMEbus in this domain would be appropriate.

For program and registration information: C. Pailley/ECP (2656, claudette.pailley@cern.ch) For all other questions: C. Parkman/ECP (3963, pmn@cernvm) or L. Pregernig/CN (2666, lfp@cernvm)

EDUCATION SERVICES EDUCATIFS

ENSEIGNEMENT GÉNÉRAL

Tél. 5811

Jeudi 24 février

à 13.00 h – Amphithéâtre
Science pour tous
par Rafel CARRERAS

ACADEMIC TRAINING

Tel. 3127

LECTURE SERIES

21, 22, 23, 24 & 25 February

11.00 to 12.00 hrs – Auditorium
The next generation of linear colliders
by R.B. PALMER / SLAC, USA

LECTURE SERIES FOR POSTGRADUATE STUDENTS

28 February, 1, 2, 3, 4, 7, 8, 9, 10 & 11 March

11.00 to 12.00 hrs – Auditorium

Introduction to particle accelerators

by E.J.N. WILSON / CERN-AC

1. *Mathematical introduction : matrices*
2. *Mathematical introduction : differential equations*
3. *The circulating beam : phase stability and focusing*
4. *Lattice design principles*
5. *Liouville's theorem and closed orbit errors*
6. *Linear accelerators (by Guest Speaker : M. Weiss in person)*
7. *Magnets multipoles and resonances*
8. *RF bunches and buckets*
9. *Electron dynamics*
10. *Instabilities*

This is a wide-screen video retransmission of a previous popular series.

The course is intended for anyone with a technical or scientific background who would like to become familiar with the principles of accelerator design. It starts with two optional lectures which revise mathematical techniques. The level of the course is chosen with the intention of preparing students for specialist training at the CERN Accelerator School (Level 1) but is also of interest to a wider audience. The ten lectures on all aspects of circular machines cover in a simple way the principles of focusing, betatron motion, dispersion, chromaticity, radio-frequency systems, phase stability and beam instabilities.