

COMMUNICATIONS OFFICIELLES

OFFICIAL NEWS

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JOUR DE COMPENSATION POUR LE 1^{ER} MAI 1994

L'Article R II 4.41 du Règlement du Personnel précise que "Lorsque le ... 1^{er} mai tombe un samedi ou un dimanche, le Directeur général fixe les jours de compensation".

Le 1^{er} mai 1994 est un dimanche. Le Directeur général a décidé que le **vendredi 13 mai 1994 serait fixé comme jour de compensation**, le 12 mai étant déjà un jour férié (jeudi de l'Ascension).

FERMETURE DE FIN D'ANNEE 1994/1995 INFORMATION ANTICIPÉE

Le Laboratoire sera fermé du jeudi 22 décembre 1994 au mardi 3 janvier 1995 **inclus**. Le premier jour de travail sera le mercredi 4 janvier 1995.

Division du Personnel
Tél. 4128

MODIFICATIONS APPORTÉES AUX STATUT ET RÈGLEMENT DU PERSONNEL

Les modifications aux Statut et Règlement du Personnel, approuvées par le Comité des finances et le Conseil lors de leurs réunions de décembre 1993 (voir l'édition spéciale du Bulletin hebdomadaire du 22 décembre 1993), sont disponibles auprès des secrétariats de division.

Division du Personnel
Tél. 4128

SEMINARS SEMINAIRES

Monday 7 February

CERN WORKSHOP
ON HARD PROBES OF DENSE MATTER
at 09.30 hrs – TH Conference Room

Open Session

Hard Hadron-Hadron Processes

09.30–10.00 H. Satz (CERN) - Introduction
10.00–11.00 R.G. Roberts (Rutherford) - Structure Functions
11.00–11.30 H. Plothow-Besch (Dortmund) - PDFLIB
11.30–12.30 W. van Neerven (Leiden) - Drell-Yan Production

COMPENSATION FOR 1 MAY 1994

According to Article R II 4.41 of the Staff Regulations, "Whenever the ... 1st May falls on a Saturday or Sunday, the Director-General shall specify the days granted as compensation".

The 1st May 1994 falls on a Sunday. The Director-General has decided that **Friday 13 May 1994 be granted as compensation**, as 12 May is already a holiday (Ascension Day).

END-OF-YEAR CLOSURE 1994/1995 ADVANCE NOTIFICATION

The Laboratory will be closed from Thursday 22 December 1994 to Tuesday 3 January 1995, **inclusive**. The first working day will be Wednesday 4 January 1995.

Personnel Division
Tel. 4128

AMENDMENTS TO THE STAFF RULES AND REGULATIONS

The last changes to the Staff Rules and Regulations approved by the Finance Committee and Council at their meetings in December 1993 (see Special Edition of the Weekly Bulletin dated 22 December 1993), are available in the divisional secretariats.

Personnel Division
Tel. 4128

14.00–15.00 P. Aurenche (Annecy) - Prompt Photon Production
15.00–16.00 G. Ridolfi (CERN) - Open Charm Production
16.00–17.00 G. Schuler (CERN) - Charmonium Production

Tuesday 8 February

PRESENTATION

10.00 to 12.00 hrs – CN Auditorium
bldg 31/3-005

High-Speed Data Acquisition

by J. FOWLIE / Pentland Systems Ltd.

Pentland Systems designs and produces VMEbus products for primarily Input/Output applications. The company, located in Scotland, is one of the suppliers under the VMEbus blanket-purchase contract. At this presentation, the speaker will focus on data-acquisition (DAQ) issues in the domain of 10-25 MSamples/s. In particular, he will discuss or review the following topics :

- Device specifications and their meanings to ensure correct selection of DAQ products,
- Front-end data buffering,
- High-speed conversion techniques,
- Clocking and triggering considerations, and factors affecting performance,
- Popular high-speed data paths (e.g. VME64, Autobahn, VSB, etc.),
- Data-management issues,
- Design and manufacturing details.

Information : L. Pregernig / CN / lfp@cernvm / 2666

Wednesday 9 & Thursday 10 February LINKÖPING (SWEDEN) AT CERN

On 9 and 10 February, five high technology firms with background from the University of Linköping in Sweden, present their products and services. An opening session is held by Christer Svensson from the University of Linköping. The seminars are organized by the Swedish National Science Research Council, the University of Linköping and the Foundation for Small Business Development in Linköping.

Wednesday 9 February

TECHNICAL SEMINAR IN HARD- AND SOFTWARE

- 09.30-12.00 Conference room B, bldg 61, 1st floor
- 09.30-10.15 Introduction and overview of the research basis at Linköping University
by Christer SVENSSON
- 10.15-10.30 Coffee
- 10.30-11.15 User Interface Design AB (UI Design) :
An architecture that supports multimedia and computer supported collaborative work (CSCW)
by Kent LUNDBERG / Manager, UI Technology
- 11.15-12.00 Innovativ Vision AB (IV) : Image analysis technology presentation of
1) image measurement and image sequence analysis
2) surface inspection and quality control and
3) high speed document processing and image capture".
by Per ROWA / Technical Director

Information : M. Diraison / FI-A / 4585 or J. Kjellman / 8618

Wednesday 9 February

THEORETICAL SEMINAR

at 14.00 hrs - TH Conference Room

Quantum gravitational phenomena and gauge interactions from superstrings in curved space time
by C. KOUNNAS / CERN-TH

Superstring theory is the only known theory where all fundamental interactions, including gravity, are simultaneously quantized and unified. The study of four-dimensional (super-)string solutions in curved backgrounds is fundamental since, at present, it provides the only way to understand the physical phenomena which took place at an early stage of our Universe, as well as the physics in some regions of space-time where the gravitational and/or gauge fields are strong, e.g., around black holes, worm holes or others. We shall present some exact superstring solutions in

the presence of non-zero gravitational and/or gauge field backgrounds. The fact that our solutions are valid for both weakly- and strongly-curved backgrounds gives us some hints at a better understanding of the structure of our space-time at short distances.

Wednesday 9 February

COMPUTING SEMINAR

Experiment in object-oriented design of a scientific visualization tool

by Gregory KOZLOVSKY / CERN-CN

Cancelled

Jeudi 10 février

SEMINAIRE DE BASE MT

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

Composants et fonctions principales des accélérateurs Cavités SC

par W. WEINGARTEN / CERN-AT

Thursday 10 February

TECHNICAL SEMINAR ON ELECTRONICS

- 09.30-12.00 Conference room B, bldg 61, 1st floor
- 09.30-10.15 Saab Scania Combitech :
Development and production of electronic systems at Saab Scania Combitech, Combitech Electronics
by Jan CARLSON / Manager Marketing & Customer Projects
- 10.15-10.30 Coffee
- 10.30-11.15 SiliCon Construction AB (SiCon) : Custom integrated circuits in particle physics applications
by Rolf SUNDBLAD / President
- 11.15-12.00 Industrial Microelectronics Center (IMC) : Technology and performance of miniaturized electronic systems; Today and in the future
by Hans HENZELL / Vice President

Information : M. Diraison / FI-A / 4585 or J. Kjellman / 8618

Thursday 10 February

THEORETICAL SEMINAR

at 14.00 hrs - TH Conference Room

Interpreting the gravitational microlensing events
by G. GIUDICE / CERN

For the particle physicist, the observed microlensing events mainly pose the question of whether or not they rule out the existence of particle dark matter, by implying that the galactic halo is composed entirely of baryonic matter. I address this issue and propose a possible interpretation of the microlensing events in the LMC for which the gravitational lenses are distributed within the galactic spheroid, thus allowing a non-baryonic galactic halo. Because of the different matter distributions in the halo and spheroid components, a comparison between microlensing event rates in the LMC, future measurements of microlensing in the galactic bulge and, possibly, in M31 provides information about the amounts of dark objects in the different galactic components.

Friday 11 February

TECHNICAL PRESENTATION

10.00–16.30 hrs – CN Auditorium
bldg 31/3-005

Tino Häupke and Holger Ölschläger of Dr. BERND STRUCK (D) will give a presentation at 10.00 hrs, repeated at 14.00 hrs.

New products in the field of :

- FASTBUS – DSP based Readout Engine and Frontend Data Compressor
 - Optical Crate Interconnect (high speed long distance)
 - 32 Channel Leading Edge Discriminator
- VXI/VME – DSP based Readout Engine and Frontend Data Compressor
- VME – 40 - 250 Msamples/s Multichannel Flash ADC-Systems
 - NIM-Logic and Level shifting functions in VME form factor
- CAMAC – Intelligent Crate Controller, 68030 based, LYNX-OS

Language : English

Information : M. Diraison / FI-A / 4585

Friday 11 February

SEMINAR ON HEAVY QUARK PHYSICS WITH LEP

at 10.00 hrs – TH Conference Room

**Oscillations of neutral Beauty Hadrons
Status and Perspectives at LEP**

This is the second in a series of six seminars on heavy quark physics prepared jointly by theorists and experimentalists from all four LEP experiments. The results obtained so far at LEP on the measurement of B_d and inclusive B^0 mixing are summarized. The prospects of improving these measurements and particularly of measuring B_s mixing at LEP are discussed. The importance of the measurements, the insight into Standard Model dynamics they give us and possible signatures for New Physics are evaluated.

Friday 11 February

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Some applications of the Bern-Kosower formalism

by C. SCHUBERT / University of Heidelberg

The string-inspired method developed by Bern and Kosower for the calculation of one-loop amplitudes in ordinary field theory will be applied to the calculation of effective actions, using the quantum-mechanical path integral formalism which has been recently rediscovered in this context. The emphasis will be on the calculation of the higher derivative expansion of the effective action for a non-Abelian gauge field and a scalar potential, which in this formalism can be performed in a manifestly covariant way. The efficiency of the method will be further demonstrated by deriving Schwinger-type formulas, and Barvinsky-Vilkovisky form factors, which arise by a summation of the higher derivative expansion. Possible multi-loop extensions will be discussed, including some preliminary results.

14-15 February

ISOLDE EXPERIMENTS COMMITTEE

Please note that the ISC Meeting scheduled for 14-15 February has been cancelled.

The next meeting will take place on 16-17 May.

Cancelled

Monday 14 February

PPE SEMINAR

at 16.30 hrs – Auditorium

One prong τ decays into kaons

by Luca PASSALACQUA / Ecole Polytechnique
(ALEPH collaboration)

The experimental knowledge of the τ lepton decays into kaons is still rather poor. Using a sample of nearly 75000 τ decays collected in 1991 and 1992 by the ALEPH detector, a detailed investigation of the one-prong strange sector is presented. Branching ratios of known decay modes have been measured with a precision matching the world average. In addition several new modes have been detected and their branching ratios measured for the first time. The analysis makes use of the ALEPH TPC dE/dx π -K separation and of a complementary K^0 tagging.

Tuesday 15 February

AC SEMINAR

10.30-12.00 hrs – AT Auditorium
bldg 30, 7th floor

Software engineering at the European Space Agency (ESA)

by Carlo MAZZA / Head of ESA Computer and Network Operations Dept., ESOC, Darmstadt

Software Engineering is increasingly growing into the habits for software development at CERN. Besides software engineering methods such as SA/SD and Object Orientation, the software guidelines and standards of the European Space Agency (ESA) are now being applied on several projects developed either in house or on a subcontracting basis. Experience with the use of these guidelines and standards is most positive, but indicates that the existing work habits should be seriously reviewed. However, similar to ESA, by applying such procedures, CERN should be able to subcontract more of its software. Carlo Mazza, of ESOC, agreed to hold a seminar on ESA's approach to software engineering and development. He is Head of ESA Computer and Network Operations Dept., ESOC, Darmstadt, and Chairman of the Board for Software Standardization and Controls (BSSC), that is involved with software standards since 1978.

It will be followed by a round table discussion at 14.30 hrs in building 112/R-022. The discussion will be limited to 20 participants. If you would like to take part in the discussion, enrol with Mrs. E. Delucinge, tel.4323, E-mail : delucinge@CERNVM.CERN.CH.

Information : A.Daneels / 2581 /
ATCASE@CERNVM.CERN.CH

Wednesday 16 February

CERN COMPUTING SEMINAR

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

Towards industrial solutions for control systems in experiments

by W. VON RUDEN / CERN-ECP

Slow Control Systems for experiments have up to now been developed in-house, using from industry at most building blocks for the hardware (G64, VME) and operating systems (Flex, OS-9, VMS, MAC). All application software was written by the users. Industrial solutions had the reputation to be either inadequate or too expensive. There are examples proving the contrary :

- teams in the AT division have used industrial solutions successfully for several years.
- the Control System of the upgraded neutrino beamline uses an industrial solution at the supervisory level combined with distributed object-oriented hardware access.

The presentation will briefly introduce the problem, present the solution adopted for the neutrino beamline, and introduce

the strategy of the newly created Control Systems Group (ECP-CO) to migrate towards industrial solutions for experiments.

Wolfgang von Ruden is a staff member in ECP division. At CERN since 1975, he has been working mostly on data acquisition systems. After participating in the g-2 and CDHS collaborations, he led the Aleph on-line team from 1982 till the begin of 1990. While on leave of absence in 1991-92, he was a co-founder and president of IBEX Computing, a software company in France. In June 1992, he took responsibility for the control system of the neutrino beamline. In January 1994 he has been appointed group leader of the Control Systems Group in ECP.

Organizer : J.-P. Porte / ECP

Jeudi 17 février

SEMINAIRE DE BASE MT

à 09.00 h – bât. 112/r-018

Composants et fonctions principales des accélérateurs

Extraction / dumps

par G. SCHRÖDER / CERN-SL

**EDUCATION
SERVICES
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**ENSEIGNEMENT TECHNIQUE
TECHNICAL TRAINING**

Monique Duval ☎ 44.60
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Technical Seminar

ORACLE 7 for developers

1 - 2 March

by Natsoft

Purpose:

The course is intended for anyone who is presently involved in developing applications on the version 6 of ORACLE and who would like to transfer them under the version 7. A sound knowledge of the SQL language and of the SQL*Plus tool are required.

Content:

1. ORACLE 7 : New Features

Introduction.

ORACLE 7 Architecture.

Performance Issues (Cursor Sharing (SQL Orders), Multi-Client Servers, New Cluster Management).

New Functionality (Changed Types of Data, New Types of Data, New Functions, New SQL Features, Optimiser, Hints).

Availability.

Administration (Rights Management, Resource Management, Administration Tools).

Networks (Functionality, Two Phase Commit (Normal case and malfunction).

2. Integrity Constraints

Definitions (Environmental Constraints, Referential Integrity, Functional Dependency).

ORACLE 7 and integrity constraints

Declarative Integrity (Environmental Constraints, Referential Integrity, Other types of Integrity).

Switching Constraints On and Off.

Adding and Deleting Constraints.

Constraint Management.

Data Dictionary.

3. Stored Procedures and Functions

PL/SQL Highlights (Variables, Procedural Aspects of PL/SQL, Error Handling).

Stored Procedures and Functions (Procedure Creation, Function Creation, Calling Procedures and Functions, Debugging Procedures, Principles of Dependency, Privileges).

Package (What is a Package ? Syntax of Package Creation, Using a Package).

4. Triggers

Definition (Syntax of Trigger Creation, Types of Trigger).

Sequence of Trigger Execution.

SQL Extensions specific to Triggers.

Switching Triggers On and Off and Compilation.

Data dictionary.

5. Methodology

Using a methodology

Organisation of Developers and Administration.

6. V6 to V7 Migration.

Registration:

Those who would like to apply should fill in an "Application for Training" form which may be obtained from the Divisional Secretariat or the Divisional Training Officer. A financial contribution of CHF 400 per person will be charged to the division. The number of participants is limited to 12. Extra sessions may be organised if necessary.