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La reproduction même partielle de ces informations par des personnes ou des institutions externes à l'Organisation exige l'approbation préalable de la Direction du CERN.

ALLOCATION POUR FRAIS D'ETUDES

Il est rappelé que le remboursement de frais de repas prévu par la circulaire no 12 ne peut être étendu aux périodes de vacances des établissements d'enseignement.

Afin de faciliter la tâche des secrétariats de division et d'éviter tout retard dans le traitement de leurs demandes, les intéressés sont priés de justifier le nombre des repas au moyen du calendrier d'études applicable à l'enfant.

Compte tenu du grand nombre d'établissements à considérer et de la variété des périodes de vacances, les intéressés sont remerciés à l'avance de leur coopération.

Division du Personnel
Tél. 3238-2862

OFFICIAL NEWS

Members of the personnel shall be deemed to have taken note of the news under this heading.

Reproduction of all or part of this information by persons or institutions external to the Organization requires the prior approval of the CERN management.

EDUCATION GRANT

You are reminded that the reimbursement of meals, provided for by administrative circular no 12, cannot be extended to the holiday periods of the establishment concerned.

In order to assist divisional secretariats and to avoid delays with the claims, those concerned are required to provide the calendar of studies applicable to the child, as justification for the number of meals.

Due to the large number of establishments to be considered and the variety of holiday schedules, your full cooperation is appreciated.

Personnel Division
Tel. 3238-2862

SEMINARS SEMINAIRES

Monday 9 November

ECP SEMINAR

at 11.00 hrs – ECP Conference Room
bldg 13/2-005

Open bus systems 92 in research and industry

by Bob DOBINSON / CERN-ECP

The speaker will give his personal summary of this conference, which was held on the 13, 14 & 15 October 1992 in Zurich.

Monday 9 & Tuesday 10 November

RADIATION WORKSHOP ON THE DESIGN OF LHC FORWARD DETECTORS

Open meeting of the LHC Experimental
Requirements Committee

Monday 9 November
at 14.00 hrs – AT Auditorium
bldg 30 / 7th floor

- *Expected radiation levels in LHC Experiments*
- *Radiation hardness of materials*

Tuesday 10 November
at 09.00 & 14.00 hrs – AT Auditorium
bldg 30 / 7th floor

- *Description of LHC forward detectors*
- *Engineering solutions and methods of dose reduction*

Tuesday 10 November

SPS & LEAR EXPERIMENTS COMMITTEE

Open Session

Tuesday 10 November
at 09.00 hrs – Auditorium

1. Report on the COGNE-VII meeting: A. Donnachie.
2. NA45/CERES – Lepton pair production in high energy hadron collisions: H. Specht.
3. Status report of UA4-2 experiment : M. Haguenauer.
4. Proposal P266 : High precision measurements of $\bar{p}p \rightarrow \Lambda\bar{\Lambda}$ cross sections in the threshold region (CERN – Univ. Erlangen – Univ. Freiburg – IKP, KFA Jülich – LAMPF – Univ. Uppsala – Univ. Urbana Champaign – IMEP, ÖAW Wien; CERN/SPSLC 92-6/P266) : K. Kilian.
5. PS200 : A measurement of the gravitational acceleration of the antiproton – A progress report: M.H. Holzschetter.
6. UA8 : P. Schlein.

Closed Session

Tuesday 10 November
at 14.00 hrs, to be continued on
Wednesday 11 November at 09.00 hrs – 6th floor
Conference Room

Tuesday 10 November

TECHNICAL PRESENTATION

14.00-15.00 hrs – bldg 73/2-027

EG & G Sealol GmbH (D/GB) will give a lecture about their capabilities in metal bellows (edge welded) manufacturing :

- metal edge welded bellows and special bellows applications
- metal bellows accumulators
- pressure compensators
- pulsation dampers

Information: M. Diraison / FI / 4585

Wednesday 11 November

PS SEMINAR

at 11.00 hrs – PS Auditorium
New directions in the HERA control system
by P. DUVAL / DESY, Hamburg

Until recently, accelerator control systems at DESY have been primarily based on the NORD110 computers. This is to a large extent still true for the HERA project. However, a modernising effort has already begun regarding controls of the proton ring. An effort has been underway for the past year (involving 3-4 fulltime physicists/programmers) to place the control of various components (such as Quench Protection, Collimator Positions and current monitors) on a PC-based network. The general layout of the network is itself strongly modelled on the Isolde control system at CERN. All the original PC applications, including the HERA archiving system, have been appearing on the network at the rate of about one per month. The HERA beam position monitors will

be placed on the PC network by the end of the year. To address special computing requirements of the front-end PC in this latter case, we will use several VME PCs in a VME bus, allowing fast data exchange via the VME backplane.

Wednesday 11 November

SL SEMINAR

at 11.00 hrs – SL Auditorium
Prévessin, bldg 864, 1st floor

The LEP logging system using on-line ORACLE database

by F. BORDRY / CERN-SL

The performance and efficiency of LEP depend on a multitude of factors, including particle beam characteristics, physics parameters, hardware settings and environmental conditions. Often, these factors interact in unexpected ways and affect the machine performance. In January 1992, a project was started to create a unique logging system using an on-line database. One year's worth of data was to be kept on-line, this was estimated to be 8 GByte. The systems concerned are of different nature (beam profile, power converter current, magnet temperature, machine mode, meteorological data, RF data,...). Major performance criteria included rapid logging of data for useful real time monitoring of compound measurements, and rapid retrieval and correlation of large amounts of data for efficient off-line analysis. A dedicated logging workstation was purchased : SUN 630MP, double CPU with 14 GByte of disk space. Great attention was paid to the definition of the space allocation for tables and indices since this is a determinant factor for the efficiency of a large database (the largest table has more than one million rows and 1 GB of data). A structure of servers and clients takes care of data gathering, data logging and management of all real time measurement and logging requests. Prototype versions of the measurement and logging programs have been logging a subset of the required data, and the performance of the monitoring and analysis tools confirm the validity of the database design. By the 1993 LEP start-up in May, the logging system will be operational and gradually more and more parameters will be logged. The requirements for a generic interface to correlate data will be discussed.

Wednesday 11 November

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

A theory of light quark confinement

by V. GRIBOV / Orsay

Wednesday 11 November

SPECIAL LHC SEMINAR

at 14.30 hrs – AT Auditorium
bldg 30, 7th floor

Monte Carlo Simulations with the LAHET Code System

by L. WATERS / Los Alamos National Laboratory

The Los Alamos High Energy Transport (LAHET) Monte Carlo code system is now being used to simulate radiation environments at various facilities. Applications include modeling the effect of low energy neutrons and photons on detector signals, predicting long term activation of components, and the design effective shielding for components and personel. The use of the code will be illustrated with recent work at the SSC.

Thursday 12 November

DETECTOR R&D COMMITTEE

Open session

at 09.00 hrs – Auditorium

1. *Introductory remarks (W. Hoogland).*
2. *RD-10 Status Report: A study to improve the radiation hardness of gaseous detectors for use at very high luminosities (CERN–Lund–ICEPP Tokyo–Inst. Cant. d'Ecotox. Geneva–LIPP Coimbra; DRDC 92-50; C. Garabatos).*
3. *RD-22 Status Report: To test beam extraction by crystal channeling at the SPS (ISA Aarhus–CERN–Frascati–Lecce–Pisa–La Sapienza Roma–CRN Strasbourg–Torino–Trieste; DRDC 92-51; G. Carboni).*

Closed session

Thursday 12 November
6th floor Conference Room (bldg 60)
following the Open Session continuing on
Friday 13 November

Friday 13 November

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Z line shape beyond or without the Standard Model

by T. RIEMANN / IfH DESY-Zeuthen

Based on an S-matrix-inspired ansatz, I discuss the model-independent description of the Z peak with ZFITTER. The degrees of freedom of the line shape and of cross-section asymmetries are made explicit. Another approach to the Z peak beyond the Standard Model in ZFITTER implies the possible existence of a Z'. Limits on its parameters have been obtained. In both approaches, QED corrections are taken into account.

Lundi 16 novembre

PRESENTATION TECHNIQUE

bât. 24/1-016

SAG Schweisstechnik AG (CH) / Messer-Griesheim (D)
proposent deux conférences:

10.00–11.30 *Purification des gaz et applications*
par M. SCHNEIDER / MG Duisbourg

14.00–15.30 *Manodétendeurs – Types et stations automatiques et applications*

par M. HEEGs / MG Frankfurt

Langues : anglais, questions en allemand et français

Renseignements : M. Diraison / FI / 4585

Monday 16 November

DETECTOR SEMINAR

at 11.00 hrs – ECP Conference Room
bldg 13/2-005

Development of a high resolution tracking detector based on capillaries filled with liquid scintillator

by G. MARTELOTTI / INFN, Rome &
S. GOLOVKIN / IHEP, Protvino, Russia

A general description of the technique will be given. Systematic studies of the detector performances and recent results obtained with a prototype will be reported and developments of new read-out chains presented, e.g. electron-bombarded CCD; optoelectronic delay tube.

Monday 16 November

AC SEMINAR

at 11.00 hrs – AT Auditorium
bldg 30, 7th floor

Recent advances in Detector development

by F. BONAUDI / CERN-ECP

Important programmes of research and development in particle detectors are under way. The main European efforts in this field are centered around the Detector R&D Committee (DRDC) of CERN, which was set up in 1990. More than 40 proposals have been received, and about 30 of these form part of the approved programme. The principal lines of development will be illustrated, under the broad headings of tracking, calorimetry, particle identification and data acquisition. This seminar will be of interest mainly to people non specialised in detectors.

Monday 16 November

PRESENTATION

at 14.00 hrs – CN Auditorium
bldg 31/3-005

HP Announcement of new 700 Series Models

Hewlett-Packard announces new Series 700 Models based on the PA-7100 Technology. HP will present its new line of workstations and servers based on the powerful PA-7100 technology. HP also offer upgrade paths for all its present customers who want to upgrade their installed systems to the PA-7100 Technology. In parallel to these systems, the version 9.0 of HP-UX will be introduced. HP-UX 9.0 offers new features and benefits to workstations users in the areas of performance, ease of use and standards compliance. In addition, Hewlett-Packard will announce the availability of scalable,

parallel systems based on HP's PA-RISC processors and Convex's supercomputing technologies.

Monday 16 November

PPE SEMINAR

at 16.30 hrs – Auditorium

Automatic Feynman diagram computations

by Jos VERMASEREN / NIKHEF, Amsterdam

Tuesday 17 November

PRESENTATION

at 10.30 hrs – CN Auditorium
bldg 31/3-005

Presenting ITASCA, the Oriented Data Base

by Eric BAERENZUNG & Amir NAJMI / IBEX
Computing, Archamps, France

Company contact: Amir Najmi / (023) 50315700

Tuesday 17 November

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium

**Direct γ production from experiment UA6 : $\Lambda_{\overline{MS}}$
and the gluon structure function**

by P.T. COX / The Rockefeller University,
New York

Wednesday 18 November

CERN COMPUTING COLLOQUIUM

at 16.30 hrs – Auditorium

Global scientific computing via a flock of Condors

by Miron LIVNY / Computer Sciences
Department, University of Wisconsin-Madison

Friday 20 November

PRESENTATION

at 10.00 hrs – AT Auditorium
bldg 30, 7th floor

Mathematica at CERN

by R. MAEDER (author of Mathematica's
Programming Language)

10.00 *General Approach* (M.V.Almsick/Wolfram)

Introduction to Mathematica ?

Math World

Mathematica materials and resources

Books, magazines, MathSource, Email

Technical support (on line help)

11.00 *Mathematica Problem Solving Clinic: Q & A*

12.00 *Lunch break*

14.00 *Interfacing Mathematica with external programs*
(R.Maeder/Wolfram)

Practical applications (B.Autin/CERN)

Mathematica and AVS in beam visualisation

15.00 *Mathematica Problem Solving Clinic: Q & A*

Friday 20 November

CAS ACCELERATOR SEMINAR

at 14.30 hrs – Auditorium

***The Eighth Lecture in the John Adams' Memorial
Lecture Series***

The status of the ESRF

by J.L. LACLARE / ESRF

POUR INFORMATION

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Monday 16 November

SÉMINAIRE DE PHYSIQUE CORPUSCULAIRE

at 16.15 hrs – Auditoire Stueckelberg

Les transputers en physique des hautes énergies

par H.L. PAGÈS / CERN

*Les besoins en puissance de calculs, nécessaires pour satisfaire
les contraintes de trigger et d'analyse des expériences imposées*

*par les futurs accélérateurs (LHC, high luminosity factories),
sont sans cesse croissants. Ils ne pourront être couverts qu'en
faisant appel aux divers types de parallélisme. Ceux-ci trouvent
un champ d'application idéal dans les expériences en physique
des hautes énergies. Le Transputer, processeur dédié au
parallélisme de par ses facilités de communication inter-
processeurs, apparaît comme un candidat possible pour les
triggers de deuxième niveau. De plus, il répond au rôle d'unité
intelligente de transfert de données et de contrôle d'expérience.
Une description de la nouvelle génération de Transputers
(T9000) accompagnera la présentation des divers
développements menés au CERN dans le cadre de projets
ESPRIT (GP-MIMD). La mise au point de systèmes de
trigger et d'acquisition "scalable" (S-DAS), évolution du
système de recherche de traces conçu à l'IPN-Lausanne pour
l'expérience UA6 du CERN, sera présenté.*