

les promotions au grade 12 et 13 serait annoncée par le Directeur général.

Juin

Mise en application des décisions **prenant effet le 1er juillet 1988.** ”

June

Decisions are implemented with **effective date : 1 July 1988.** ”

SUMMARY OF THE 31st MEETING OF THE ADVISORY COMMITTEE OF CERN USERS HELD ON 5 FEBRUARY 1988

Relations between CERN and its users

ACCU reviewed possible procedures to ensure that members of the new body of users which is under consideration, would be fully representative of the user community.

CERN Review Committee

ACCU considered that there was no clear case for the proposition of the CRC to reduce the CERN Staff complement. ACCU was also opposed to the proposal to create a new status for certain categories of staff. ACCU expressed the fear that such measures would lead to a further decline in the services rendered to the users.

Office space

ACCU urged CERN management to immediately remedy the lack of office space for users. ACCU

expressed its strong conviction that a redistribution of existing space allocated to the various Divisions would contribute to the establishment of a healthier situation.

Computer matters

ACCU repeated its regrets that restrictions based on nationality had to be introduced for the access to the newly installed supercomputer. ACCU requested CERN management to seriously consider alternative technical solutions whenever a future increase of the computing power would be subject to similar restrictions.

LEP Project

ACCU congratulated all those involved with the LEP Project with the successful end of the tunnelling work.

Next meeting will be held on 14 April 1988.

SEMINARS SEMINAIRES

Monday 7 March

EF SEMINAR

at 11.00 hrs – EF Conference room
bldg 13, 2-005

Polarization at LEP

by Daniel TREILLE / CERN-EP

The possibility of using polarized beams at LEP is presently under study. The physics case is reviewed. The main technical problems are briefly described. To exploit fully the potential of polarization, new experimental requirements are implied and we discuss them.

Tuesday 8 March

CERN COLLOQUIUM

at 16.30 hrs – Auditorium*

High temperature oxide superconductors Can their high magnetic field promise be achieved soon?

by David C. LARBALESTIER / Applied
Superconductivity Center, University of
Wisconsin, Madison

Since the quite unexpected discoveries of high temperature superconductivity in La-Ba-Cu-O by Bednorz and Muller and in Y-Ba-Cu-O by Wu, Chu and co-workers, there has been a quite unprecedented public interest in the applications of superconductivity. During much of 1987, there has been intense speculation that technologies based on oxides would permit many everyday uses of superconductivity for applications as diverse as levitated trains, motors, generators, digital electronics, SQUIDS and cheap, compact 20 TeV particle accelerators. Much comment has suggested that some of these developments would occur very quickly. As I write in late 1987, it is however apparent that the materials science and physics of these oxides are very complex. A great impediment to high field applications (for fields > about 0.1 T) is the very low transport critical current density (or order 100 A/cm² for fields of > 1 T). Yet it is clear that the potential of these materials is enormous. At 77 K the upper critical field is at least 35 T and it probably exceeds 100 T at 4 K. The local critical current densities exceed 10⁴ – 10⁵ A/cm² even in fields of 10 T and above. This large difference between the transport and local current densities is so far found in all polycrystalline samples, except for oriented thin films with special grain orientation relationships. An intense effort to understand these perplexing properties is now underway worldwide. An overview of the current situation as regards magnetic field applications of oxide superconductors will be given.

* Tea and coffee will be provided at 16.00 hrs.

Wednesday 9 March

PRESENTATION

10.00 to 12.15 – DD Auditorium, bldg 31, 3-005
14.00 to 17.00 hrs – OPAL Counting Room
(Car park behind bldg 28)

The PRIAM VMEbus Blanket Purchase Contracts – 1988

by Creative Electronic Systems SA
Tekmis (formerly Thomson Microsystems)
represented by Modulator SA
Force Computers represented by W. Moor SA
Motorola represented by Omni Ray AG

Following the recent renewal and extension of the PRIAM VMEbus Blanket Purchase Contracts, the companies concerned will present their latest products and services. The presentation will be largely technical in nature and will be given by representatives of the manufacturers, as well as the local distributors, where appropriate. In the afternoon, the four companies will hold a 'table-top' exhibition of their VMEbus products and will be available for informal discussions of all aspects, technical and commercial.

Presentations

In the DD Auditorium (bldg 31, 3-005)

10.00–10.15 Introduction to the PRIAM Blanket Purchase Contracts

10.15–10.45 Creative Electronic Systems

10.45–11.15 Tekmis (Modulator SA)

11.15–11.45 Force Computers (W. Moor SA)

11.45–12.15 Motorola (Omni-Ray AG)

Exhibition

In the new OPAL Counting Room (car park behind bldg 28) from 14.00 until 17.00 hrs.

Wednesday 9 March

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Radiation of uniformly moving sources

by V.L. GINZBURG / Lebedev Institute,
Moscow

General review including new developments – Varilov-Cherenkov radiation, Doppler effect, transition radiation and related phenomena.

Mercredi 9 mars

SEMINAIRE LEP

à 14.30 h – Amphithéâtre LEP

Contrôle du réseau électrique du LEP

par A. SWIFT / CERN-LEP

Le réseau de distribution électrique du LEP alimente, sous quatre tensions différentes, l'accélérateur, les expériences et les services généraux, sur une circonférence de 27 km et jusqu'à 140 m en profondeur. L'exploitation d'un tel réseau nécessite la possibilité d'intervenir à trois niveaux du système de contrôle :

- au niveau local (82 sous-stations installées dans le tunnel et dans les bâtiments de surface) : MICENE
- au niveau régional (les 9 bâtiments SE) : console DLX
- au niveau global (salle de contrôle PCR) : console des services.

Chaque niveau sera décrit en détail et un bilan de l'expérience opérationnelle acquise jusqu'à ce jour sera présenté.

Wednesday 9 March

CERN COLLOQUIUM

at 16.30 hrs – Auditorium*

The tau decay mode problem

by Martin PERL / SLAC

* Tea and coffee will be provided at 16.00 hrs.

Friday 11 March

DD SEMINAR

10.00 to 16.00 hrs – DD Auditorium
bldg 31, 3-005

ULTRIX/NFS SEMINAR

This presentation will consist of two technical sessions each lasting approximately two hours :

10.00–12.00 E. Gould, one of the co-founders of Mt XINU will present a Network file system tutorial :

- introduction to NFS – clients, servers, file systems, remote procedure call, XDR protocol
- configuration and maintenance,
- security issues
- yellow pages.

14.00–16.00 S. Stepanek and D. Geiger will present Standardization and the future of UNIX :

- standardization directions – Berkeley, System V, POSIX
- DEC plans for Ultrix and the place of UNIX with respect to VMS.

S. Stepanek is currently an ICEC/Carnegie Fellow working on educational applications of UNIX-based workstations.

D. Geiger is manager of computing re- sources at the Wollongong Group in Palo Alto.

Friday 11 March

SPS SEMINAR

at 11.00 hrs – SPS Auditorium
bldg 864, 1st floor

Transients in travelling wave structures

by G. DÔME / CERN-SPS

The transient voltage induced by an electric charge traversing a given length of periodic structure is computed, using as a model a chain of coupled resonators. The structure is assumed to be matched at both ends which means that it operates in travelling wave. The shape of the RF pulse in each cell is derived approximately, together with its frequency spectrum.

Friday 11 March

EP SEMINAR

at 14.00 hrs* – Auditorium

Neutrino production of dimuons at the Tevatron

by Wesley H. SMITH / Columbia University

* *Please note unusual day and time!*

Neutrino and antineutrino interactions with two muons in the final state have been studied by the CCFR collaboration in the Fermilab Tevatron neutrino beam. A total of 1805 opposite sign and 116 same sign dimuons with energy between 30 and 600 GeV and muon momentum greater than 9 GeV/c have been observed. The numbers and kinematic distributions of the same sign dimuons are shown to be consistent with standard model sources. The opposite sign dimuon events are used to extract the strange quark content of the nucleon, and the energy dependence of the charm production by neutrinos.

Monday 14 March

PRESENTATION

09.15–12.30 hrs and 14.00 – 16.00 hrs

DD Auditorium, bldg 31, 3-005

Inmos Transputer developments

by P. ECKELMANN, D. McCUSKER and

M. ZEDER / Inmos Corporation

The morning presentation will be devoted to an overview of Inmos, Transputers and Occam together with a presentation of the current chip and board level products. The afternoon session will concentrate of software, software tools and time for questions.

Monday 14 March

EF SEMINAR

at 11.00 hrs – EF Conference room

bldg 13, 2-005

Design considerations for CMOS integrated circuits in future particle physics experiments

by Pierre JARRON / CERN-EF

Application Specific Integrated Circuits (ASIC), usually in custom CMOS technology, are now becoming key devices in modern electronics. In the field of HEP, ASIC applied to the readout electronics of particle detectors can provide improved solutions to the problem of data acquisition in collider experiments. Design considerations for front-end amplifiers realised in CMOS technology, will be discussed, in particular the trade-off between power consumption, speed, noise, channel density and detector capacitance will be analysed. Preliminary results of the ASIC chip developed for the readout of a silicon pad detector for the upgrade of the UA2 experiment will be presented. Trends in the development of CMOS custom chips for future collider experiments will also be discussed.

Monday 14 March

EP SEMINAR

at 16.30 hrs – Auditorium

Possibilities to observe CP-violation in

$e^+e^- \rightarrow b\bar{b}$

by Paul GROSSE-WEISSMAN / SLAC

Tuesday 15 March

LEP EXPERIMENTS COMMITTEE

Open session

at 09.00 hrs – Auditorium

09.00–09.10 *Introductory Statement (J.J. Thresher)*

09.10–09.40 *Status of LEP (E. Picasso)*

09.40–10.20 *Installation of experiments (F. Bonaudi)*

10.20–10.50 *Machine induced particle backgrounds at the LEP detectors (G. von Holtey)*

10.50–11.10 *Coffee break*

11.10–12.10 *Report on MEDDLE and the MUSCLE report (D. Williams)*

12.10–12.25 *Status of SLC (R. Taylor)*

Status of LEP Experiments

12.25–13.10 *L3*

Lunch

14.00–14.45 *ALEPH*

14.45–15.30 *DELPHI*

15.30–16.15 *OPAL*

Closed session

at 16.45 hrs, 6th floor Conference Room, Administration Building to be continued on Wednesday 16 March at 09.00 hrs.

Mercredi 16 mars

SEMINAIRE LEP

à 14.30 h – Amphithéâtre LEP

Les convertisseurs de puissance LEP

par H.W. ISCH / CERN-LEP

Du lundi 14 au vendredi 18 mars

SEMINAIRE MACINTOSH

SUR MICROPLANER PLUS

de 14.00 à 17.00 hrs

Logiciel de planification (méthode Perth)

Les participants devront avoir les connaissances de base du Macintosh.

Pour les inscriptions, s'adresser à Mme W. HUG / EP, tel. 8-7159 de 08.00 à 12.00 h.

Nombre de places limitées.

Date limite d'inscription : mercredi 9 mars.