

COMMUNICATIONS OFFICIELLES

Les membres du personnel sont censés avoir pris connaissance des communications officielles ci-après.

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.

MAINTIEN/SUPPRESSION D'ALLOCATION POUR ENFANT A CHARGE DE 18 ANS ET PLUS

Les membres du personnel ayant des enfants de 18 ans ou plus (ou atteignant 18 ans au cours de l'année scolaire 1991/92) ont reçu courant juillet un

QUESTIONNAIRE

S'ils n'y ont pas encore donné suite, ils sont priés de retourner ce questionnaire SANS DELAI.

Si l'enfant à charge poursuit ses études, ils devront en outre fournir un

CERTIFICAT DE SCOLARITE

sans délai pour les écoles secondaires et professionnelles (contrats d'apprentissage), et avant le 30 novembre 1991 pour les universités.

De ce certificat dépend le maintien de l'allocation pour enfant à charge au-delà du 1.9.1991.

Remboursement et Congés
Division du Personnel
Tél. 3238-4474

SEMINARS SEMINAIRES

Tuesday 8 October

ECFA WORKING GROUP ON HADRON COLLIDER B-PHYSICS

at 09.00 hrs – AT Auditorium
bldg 30, 7th floor

Study of CP-violation in B-decay at hadron colliders

09.00 *Introduction & overview*
by P. Schlein

09.35 *CP-violation in B-meson decays*
by A. Pich
Break

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.

EXTENSION/SUPPRESSION OF ALLOWANCE FOR DEPENDENT CHILDREN AGED 18 AND ABOVE

Members of the personnel with dependent children aged 18 or above (or reaching 18 during the 1991/92 school year) have received a

QUESTIONNAIRE

in July. If this questionnaire has not been completed and returned, they are requested to do so IMMEDIATELY.

If the dependent child's education continues, they will also have to provide a

SCHOOL CERTIFICATE

without delay for secondary and professional schools (apprenticeship contracts), and before 30 November 1991 for universities.

The continuation of the children's allowance after 1.9.1991 depends upon the receipt of this certificate.

Claims and Leave
Personnel Division
Tel. 3238-4474

10.30 *P238 silicon microstrip project at SPS-collider & results*
by M. Medinnis

11.10 *Simulation of trigger, reconstruction, tagging & backgrounds*
by S. Erhan

12.00 *Machine interface of forward spectrometer at LHC*
by K. Potter

12.30 *Lunch*

14.00 *Design ideas for EAGLE at LHC*
by A. Poppleton

- 14.35 *Design ideas for CMS at LHC*
by M. Della Negra
- 15.10 *Open discussion of EAGLE & CMS B-physics potential*
Break
- 15.50 *Silicon & data-driven trigger processor P28 R&D project*
by J. Zweizig
- 16.25 *Status of fast-RICH prototype*
by T. Ypsilantis
- 17.00 *Status of double-sided silicon R&D*
by R. Harr

Wednesday 9 October

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Inside the proton

by E. COHEN / Saclay

A method for the visualization of Quantum Field Theories will be presented based on the Hamiltonian formulation. The method could be used both for research and educational purposes. I will show several animations of the interior of the proton following a simplified version of QCD. The presentation is aimed at a general audience: theorists, experimentalists, computer experts and physics educators.

Thursday 10 October

CERN COMPUTER COLLOQUIUM

at 14.00 hrs – Auditorium

Optical Wavelength Division Communications Technology

by P.E. GREEN / IBM Research, Yorktown Hts

The bandwidth of silica fibre over which the attenuation is less than 0.3 db/km is 200 nm, which translates to 25000 GHz. The speaker will describe results achieved so far at IBM Research in building LAN/MAN networks that exploit this copious bandwidth to interconnect hundreds or thousands of workstations and computers at sustained speeds up to 1 Gbit/s per node. The use of photonic amplifiers should allow circuit-switched networks of this type to be built today, but to achieve packet-switching will require sub-micron tunability. Several new device approaches towards achieving this will be described. During TELECOM '91, a prototype of this technology, named Rainbow, will be demonstrated running over fibres between PALEXPO and the CERN Computer Centre. It is interesting to speculate whether such an 'all-optical' approach could be incorporated in the data acquisition systems of future detectors.

Paul Green has worked on network architecture for 15 years at IBM Research, where he is currently manager of Advanced Optical Networking. He is the author of the forthcoming book 'Fiber Optic Communication Networks' (Prentice-Hall).

Organizer: F. James / CN

Thursday 10 October

PS/HI SEMINAR

at 15.30 hrs – PS Auditorium

bldg 6/2-024

Electron acceleration by transverse electromagnetic laser pulses in vacuum

by Werner SCHEID & Thomas HÄUSER / Universität Gießen

In the first part, electron acceleration by linearly polarized plane electromagnetic wave packets is discussed and shown that high intense laser pulses can accelerate electrons up to energies of TeV on a length of meters. The second part deals with the realisation of pulse-lasers for TeV electron acceleration. Further, the influence of the initial electron velocity on the final electron energy and effects of the deceleration due to radiation damping are explained.

Thursday 10 October

COMPUTING SEMINAR

at 16.00 hrs – CN Auditorium

bldg 31/3-005

The OSF/DCE Distributed Computing Environment

by Gregg LEBOVITZ / OSF

Open Systems are made of a combination of connectivity, portability, and interoperability; this achieves an environment in which users have access to all services and systems resources regardless of their location. DCE (Distributed Computing Environment), operating system and network independent, is a comprehensive set of state-of-the art, integrated services which supports the development use and maintenance of distributed applications.

Organizers : N. Cremel & F. Hemmer / CN

Thursday 10 October

DETECTOR SEMINAR

at 16.30 hrs – AT Auditorium

bldg 30, 7th floor

VLSI Read-out System for Knife-edge Detectors

by Guy VANSTRAELEN / SSC Laboratory

Knife-edge detectors are attractive for use in tracking chambers in SSC experiments because of their high gas gain, high position resolution and radiation damage insensitivity. The main reasons for the radiation tolerance are the large detector signal and the almost purely digital read-out. A read-out system incorporating preamplifier, comparator, buffer, local bunch counter and encoder is developed and will be implemented in a 1.2 μm CMOS process. Due to the conflicting specifications of available space, power, speed and noise, the analog portion of the design is very unusual. An input current-mirror integrating amplifier is used to implement the preamp. The preamp-comparator combination uses a total of 65 μW and can handle input signals in excess

of 10^4 electrons. The design strategy will be accounted for, the functional blocks will be explained in detail, and the performance will be illustrated using simulation results.

Friday 11 October

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Semi-leptonic decays of kaons and prospects for DAPHNE

by J. BIJNENS / CERN

The calculation of kaon semi-leptonic decays within the framework of Chiral Perturbation Theory will be discussed and a comparison made with present experimental data. A discussion of the improvements possible at the Frascati phi factory, DAPHNE, will be included.

Monday 14 October

AC SEMINAR

at 11.00 hrs – AT Auditorium

bldg 30, 7th floor

The LHC cold bore vacuum system

by A.G. MATHEWSON / CERN-AT

At 7.7 TeV the protons in the LHC emit synchrotron radiation with a critical energy of 63.7 eV. With a maximum beam current of 851 mA, each metre of cold bore vacuum chamber will be subjected to a photon flux of 1.8×10^{17} photons s^{-1} (the corresponding figure for LEP being 1.2×10^{16} photons s^{-1}) and an incident power of 0.56 W. The combination of the bunched proton beam, a cryopumping vacuum chamber surface and synchrotron radiation is somewhat of a nightmare for the vacuum system designer in that numerous effects are present all of which conspire to make the required low pressures in the presence of beam a non trivial problem. These effects will be described in detail and an estimation of the vacuum behaviour of the LHC with beam will be given.

Monday 14 October

WORKING GROUP ON ULTRA LOW ENERGY ANTIPROTON PHYSICS

Second meeting

13.45-17.30 hrs – Salle B*

Preliminary agenda (not necessarily in time order)

- 1) *Introductory Remarks*
by J. Eades (5 min)
- 2) *Technical aspects of using the Lep Linac injector to produce positrons in the LEAR hall*
by P. Lefèvre (10 min)
- 3) *Planned measurements with the Giessen Linac for collecting low energy positrons in a Trap*
by H. Kalinowsky (20 min)

- 4) *Calculations and possibilities for eV positron production at CERN*
by M. Charlton (25 min)
- 5) *Trapping techniques for neutral hydrogen (antihydrogen) atoms*
by J. T. M. Walraven (30 min)
- 6) *Experiments in progress in Genoa on trapping protons (antiprotons) in large numbers*
by G. Testera (20 min)
- 7) *Expectations and developments in laser optics for very high precision spectroscopy*
by T. W. Hansch (30 min)
- 8) *Routes to antihydrogen formation*
by B. Deutch (30 min)
- 9) *Progress with a 'deep' antiproton trap at Los Alamos*
by M. Holzschneider (30 min)

Informal discussions may be continued on October 15 if necessary.

*) Salle B seats about 25 people. In case the space is inadequate, we will move to the public visits room (bldg 33/R-009, in the Reception Building near the flagpoles).

Monday 14 October

PPE SEMINAR

at 16.30 hrs – Auditorium

Strange baryon production/Correlation and parton hadronization models

by James YEN-TANG OYANG / High Energy
Physics Department, UCLA

The TPC/Two-Gamma collaboration's results on strange baryon production in e^+e^- annihilation at 29 GeV (PEP at SLAC) will be presented and the recently developed UCLA hadronization model will be discussed. This study of strange baryon inclusive production rates and their flavor correlations probes the baryon formation process in the non-perturbative QCD regime and begins to place constraints on hadronization models. We believe that an intense study based on the enormous amount of high quality LEP data should be able to distinguish amongst different models and provide considerable information in understanding the underlying color confinement mechanism in the parton hadronization process.

Tuesday 15 October

CERN COLLOQUIUM

at 16.30 hrs – Auditorium

Testing physics laws by ultraprecise spectroscopy of hydrogen atoms

by T. W. HANSCH / Ludwig-Maximilians-
Universität München

Wednesday 16 October

PS SEMINAR

at 11.00 hrs – PS Auditorium

bldg 6/2-024

**Report from the Stanford Synchrotron Radiation
Laboratory**

by Simon BAIRD / CERN-PS

INFORMATIONS GENERALES GENERAL INFORMATION

CAMPAGNE SECURITE ROUTIERE

La campagne sécurité routière débutera le 7 octobre par une semaine d'exposition (bâtiment principal 1er étage) et de contrôle de l'état des véhicules (sur le site de Prévessin).

Exposition

Les écoliers du Jardin d'enfants présenteront leur participation à cette campagne aux travers de leurs regards naturels.

Contrôle des véhicules

Rappel légal aux détenteurs de véhicule immatriculés en France

Les véhicules dont la mise en circulation est antérieure au 01.01.83 devront être contrôlés par un organisme agréé dans le courant de l'année 92.

Un contrôle normalisé (52 points) qui sera effectué du 7 au 11 octobre 1991 sur le site de Prévessin par l'Automobile Club de l'Ain sera reconnu valable.

Appeler le 3228 ou 4860 pour réservation. (Quelques places sont encore disponibles).

ROAD SAFETY CAMPAIGN

The road safety campaign will start on Monday 7 October with an exhibition (Main Building, 1st floor) and a car inspection (Prévessin site).

Exhibition

The children of the nursery school will present their own view of road safety.

Car inspection

Reminder

Cars registered in France before 01.01.1983 must be checked during 1992 by an official body.

A standard check (52 points) will be performed by the Ain Automobile Club on the Prévessin site between 7 and 11 October 91.

This is an officially recognized inspection.

Please call 3228 or 4860 to book.

TRAINING AND EDUCATION ENSEIGNEMENT

ENSEIGNEMENT GENERAL

Tél. 5811

Jeudi 10 octobre

de 13.00 à 13.30 h – Amphithéâtre

Science pour tous

par Rafel CARRERAS

ACADEMIC TRAINING

Tel. 2844

7 October

11.00–12.00 hrs – Auditorium

Laser accelerators in vacuum

by Heinrich HORA / CERN-PS

Lecture 3

Lectures series for Postgraduate students

8, 9 & 11 October

10.30–12.00 hrs – Auditorium

Quantum Field Theory

by B. DE WIT / Rijksuniv. Utrecht