

SEMINARS SEMINAIRES

Monday 25 May

EF SEMINAR

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

Experiments at the ep collider HERA-H1 and ZEUS

by Wulfrim BARTEL / DESY, Hamburg

Some physics aspects of ep collisions are briefly reviewed. The large energy asymmetry of the two beams (30 GeV electrons collide with 820 GeV protons) has significant impact on the detector design at HERA. Calorimetry is a central issue for HERA experiments. Two experiments are under construction. The H1-group is building a large liquid argon calorimeter, while the ZEUS-group has a depleted uranium-scintillator calorimeter. The physics aims of the two experiments are complementary. ZEUS is well equipped to measure charged current events. H1 has the potential to detect leptons with high efficiency over the full solid angle.

Monday 25 May

EP SEMINAR

at 16.30 hrs – Auditorium

Nuclear effects in dimuon production by pions

by M. GUANZIROLI / ETH, Zurich

We have measured the cross-sections for massive muon pair production by 140 and 286 GeV/c π^- s on D_2 and W , using the NA10 spectrometer. The data show a nuclear effect on the nucleon quark distributions; a comparison between this observation and the well-known EMC effect will be presented. The ratio of the $d\sigma/dp_T$ differential cross-sections increases with p_T , the dimuon transverse momentum. We also present preliminary results on the A -dependence of the T production cross-section.

Tuesday 26 May

MEETING ON

FASTBUS DEVELOPMENTS

at 09.00 hrs – TH Conference Room

1. The current status of the L3 data acquisition system
by D. FONG / MIT & CERN
2. The DELPHI muon chambers read-out system
by C. STORY / University of Oxford
3. The read-out controller for the ALEPH electro-magnetic calorimeter electronics
by I. VIDEAU / Ecole polytechnique, Paris
4. Status report on FASTBUS system management software
by P. SAETRE / CERN
5. A.O.B.

Mardi 26 mai

SEMINAIRE POUR LES SECRETAIRES

à 11.15 h – Baraque Enseignement
bât. 593, salle 11

Comité des relations avec l'industrie

par O. BARBALAT / Secrétaire de ce Comité

Cet exposé fera le résumé du travail accompli par ce Comité (créé en octobre 1985) afin de discuter de la politique du CERN vis à vis de l'industrie pour tenir compte : a) de l'évolution des industries européennes en ce qui concerne les technologies; b) des nouvelles relations à établir avec ces industries et les autres instituts de recherche européens.

Toute personne intéressée est la bienvenue.

Pour plus d'information, prendre contact avec F. Tetu / DG, tél. 4797.

Tuesday 26 May

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

What neutrinos tell us about the supernova, and vice versa

by A. DE RUJULA / CERN

The Mont-Blanc group (LSD) reports a neutrino burst preceding those of Kamiokande (K2) and IBM by 4h.43m. The K2 data at LSD time are said to confirm LSD. I argue that K2 strongly supports LSD, and that all experiments are compatible at all times; SN1987A banged twice. I extract from the data the neutrino parameters of the supernova, and discuss a predictive scenario explaining them all, including the interval between the bangs. In dealing with limits on the neutrino mass we do not ignore the questions of model-dependence and statistical significance.

* Tea and coffee will be provided at 16.00 hrs.

Wednesday 27 May

SPS SEMINAR

at 11.00 hrs – SPS Auditorium

Integration of models, simulation, workstation and expert system for accelerator commissioning and control

by Martin LEE / SLAC

We have been working on the development of a system program for the commissioning of SLC consisting of a lattice program (COMFORT), a beam simulator (PLUS) and an expert system (ABLE). This system enables the user to have any amount of expertise as is desired ranging from the manual look and adjust to fully automated operation. A general description of this program and some of the recent applications will be presented.

Wednesday 27 May

SPECIAL PS SEMINAR

at 11.00 hrs – PS Auditorium
bldg 6, 2-024

R. Carreras has been presenting in evenings, once a month, a lecture on general science and in particular, the most recent ideas and innovations that have reached print recently. This special PS seminar will be a video presentation of one of these very popular sessions from early in the year and will last about one and a half hours. The language used is French.

Wednesday 27 May

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

On the trail of quark-gluon plasmas

by M. GYULASSY / CERN and LBL

The search of evidence for quark matter formation in $^{16}\text{O} + \text{Pb}$ collisions at the SPS is discussed from the point of view of QCD transport theory and colour string/rope models.

Wednesday 27 May

LEP SEMINAR

at 14.30 hrs – LEP Auditorium

bldg 30, 7th floor

Lead shielding of the vacuum chambers

by G. CHAPMAN / CERN-LEP

Bunches of electrons and positrons circulating in the LEP Vacuum System will emit very intense X-rays (synchrotron radiation). To ensure that the radiation level in the tunnel is kept within permissible limits, a complete radiation shielding of the vacuum system has to be envisaged. The necessary shielding is effected by bonding tinned lead profiles directly on the aluminium chambers using a tin lead solder joint and, in addition preformed lead shells are fitted at chamber extremities. A description of the bonding process adopted by industry for some 2584 chambers up to 12 metres long will be given together with interim bonding efficiency results.

Wednesday 27 May

DD SEMINAR

at 16.00 hrs – DD Auditorium

bldg 31, 3-005

PAW – The Physics Analysis Workstation

by R. BRUN / CERN-DD

The Physics Analysis Workstation system (PAW) is currently being developed at CERN. PAW is a toolkit for interactive data analysis and data presentation. It is an enhancement of the data presentation package HTV and an alternative to the conventional DST (BATCH + HBOOK) style of analysis. In the framework of PAW, existing packages such as HBOOK and HPLLOT have been improved and new facilities added. Other packages like KUIP (the User Interface Package) and HIGZ (graphics) have been specially developed, but they can also be used outside PAW in BATCH mode or other interactive applications. A FORTRAN interpreter COMIS is available. It provides the familiar FORTRAN syntax for operations such as minimization or selection

of functions without the need to recompile and relink. A first release of PAW will be available after the seminar on the CERN main interactive system IBM/VM, VAX/VMS and APOLLO.

Monday 1 June

EF SEMINAR

at 11.00 hrs – EF Conference Room

bldg 13, 2-005

Experimental setup of NA35 and results from the first oxygen run

by Rainer RENFORDT / University of Frankfurt and CERN-LEP

NA35 was designed as a survey experiment to search for the quark gluon plasma. Several components of the experiment are described in detail : adaptation of the film-cameras to the experiment and shielding of the magnetic field, the streamer chamber and the on-line supervision system. The present status of the data analysis will be discussed, focussing on the measurement of the streamer chamber photographs on the CERN ERASME facility.

Monday 1 June

TIS SEMINAR

at 14.30 h – Education Service

bldg. 593, room 11

To err is human...

by R. DAVIES

...and it is essential to remember this when attempting to design safety into any human endeavour. Although the technology may vary, human nature is much the same anywhere, so that an analysis of accidents in other fields may help us in our own. A variety of case histories from chemical, nuclear and other industries will be presented with this end in view.

The speaker, a visitor in EF Division, has a wide experience of the hazards and also accidents in many industries, having been for several years a member of a UK research organization which provided consultancy service on the scientific and technological aspects of insurance risks.

Monday 1 June

PROTON SYNCHROTRON AND

SYNCHRO-CYCLOTRON COMMITTEE

Open session

at 14.30 hrs – Council Chamber

1. Addendum 2 to PS177 – Study of the fission decay of the heavy hypernuclei produced in antiproton annihilation (Amsterdam NIKHEF - Darmstadt GSI - Grenoble CEN - Orsay CSNSM - Penn. State - Saclay CEN DPhN - Uppsala - Warsaw; PSCC/87-19/P15 Add.2; M. Rey-Campagnolle).

Closed session (part 1)

Monday 1 June at about 15.00 hrs, in the 6th floor Conference Room

Closed session (part 2)

Tuesday 2 June at 09.00 hrs, in the 6th floor Conference Room.

Wednesday 3 June

LEP SEMINAR

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

Modern methods in engineering design

by F. BERTINELLI / CERN-LEP

Wednesday 3 June

COMPUTER SEMINAR

at 16.00 hrs – Auditorium

New developments in microelectronics technology and VLSI computer aided design

by W. FICHTNER / Institute for Integrated Systems, ETHZ

TRAINING AND *EDUCATION* *ENSEIGNEMENT*

Mardi 2 juin

LES SCIENCES AUJOURD'HUI

à 20.00 h précises – Amphithéâtre
(jusqu'à environ 22.00 h)

par R. CARRERAS

Rafel Carreras, responsable du programme d'Enseignement général au CERN, commentera et expliquera un choix d'articles parus récemment dans des revues scientifiques, et qui couvrent l'ensemble des sciences physiques et biologiques ainsi que certains aspects des relations science-société. Une attention particulière est portée au langage et aux notions utilisés afin que les explications et les commentaires soient accessibles aux personnes n'ayant pas de formation scientifique.

Entrée libre

(Please note that the lecture will be given in FRENCH)

Service des Relations Publiques
Tél. 2722

INFORMATIONS *GENERALES* *GENERAL INFORMATION*

PERTURBATION DE LA CIRCULATION ROUTIERE

Le mardi 26 mai 1987 se déroulera la première étape cycliste du 'Critérium du Dauphiné Libéré'. Cette étape, partant de Grenoble et passant par Genève, arrivera à Ferney-Voltaire après un circuit dans le Pays de Gex. Ceci créera une perturbation de la circulation prévue entre 14.30 et 17.30 h.

Circuit :

Douane de **Ferney-Voltaire** : rue de Genève, avenue Voltaire, avenue du Jura, RN 5, Ornex, Maconnex, CD 15, Versonnex, Sauverny, Grilly; **Divonne-les-Bains** : déviation poids lourds, carrefour de la Gendarmerie, avenue du Salève, avenue de Genève, carrefour des

ACADEMIC TRAINING

Tel. 2844-3364

3 and 4 June

11.00 hrs to 12.00 hrs – Auditorium

5 June*

10.45 hrs to 11.45 hrs – Auditorium

Please note unusual time!

Hot topics in spectroscopy

by F.E. CLOSE / Rutherford and Appleton Laboratory

How is QCD manifested in hadron spectroscopy? What experiments can CERN offer in this regard? Can we ever hope to identify gluonic hadrons? These are the main themes underlying these lectures. An introductory lecture will review the qualitative successes of QCD in spectroscopy and evaluate what we know about interquark forces at short and long range. I will survey the literature on gluonic hadrons and try to abstract some common features from the myriad of predictions. Recent ideas on multi-quark mesons and 'quark-molecules' will be discussed. In searching for gluonic hadrons I will stress the important interplay between different types of experiment, and evaluate what contributions LEAR, SPS and eventually LEP may provide.

* On Friday 5 June, at 13.00 hrs, in the Auditorium, F.E. CLOSE will give a talk on 'The cosmic onion' (see the CERN Staff Association announcement in the Bulletin).

Quatre-Vents, Le Central, sortie Divonne, CD 984.C; **Gex** : Le Patio, rue des Terreaux, route de Lyon, Les Vertes Campagnes, Echenevex, Chevry CD 984.C; **Saint-Genis-Pouilly** : carrefour de la Fontaine, rue de Genève CD 984, carrefour des Grands Champs, route de Ferney (vers le site de Prévessin), nouvelle déviation jusqu'au carrefour de Ferney-Voltaire, rue de Genève, avenue Voltaire.

Il est recommandé de ne pas emprunter la douane de Ferney-Voltaire aux heures de fermeture de la chaussée.

Il est **souhaitable** que les automobilistes empruntent les postes de **douane de Prévessin, de Meyrin ou de Versoix**.

Les déviations prévues sont les suivantes :

1. depuis **Ferney-Voltaire**, par l'avenue du Jura pour éviter le centre ville de Ferney;
2. à la sortie de **Divonne**, par Vesancy pour éviter le CD 984.C vers Gex;
3. à **Gex**, par Méribel, Echenevex pour éviter le CD 984.C vers Saint-Genis;