

SEMINARS SEMINAIRES

Monday 2 November

EF SEMINAR

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

Technical aspects of the UA2 scintillating fibre detector

by Chris BOOTH / CERN-EF

Part of the current upgrade of the UA2 detector involves the installation of a large tracking detector using scintillating fibres, and incorporating a lead converter to identify electromagnetic particles. The Scintillating Fibre Detector is a cylinder of radius 38 to 44 cm, composed of 60000 plastic optical fibres of over 2m in length. This talk will place particular emphasis on the readout system of the detector, which amplifies, multiplexes and digitizes the signals from the fibres. This uses large aperture, de-magnifying image intensifiers, providing a gain of about 40000, charge-coupled devices (CCDs) converting the optical image into a single train of electrical pulses for 2000 fibres and Fastbus digitizers, providing a high degree of data reduction. Results from beam tests of a full-scale prototype of 960 fibres with readout will be presented, together with very recent experiences with cosmic rays passing through the complete detector.

Monday 2 November

TIS SEMINAR

at 14.30 hrs – PE Auditorium (Techn. Training)
bldg 593, Room 11

Lessons to be learnt from the fire at Fermilab by C.W. NUTTALL / Leader of the Flammable Gas and Chemistry Group, TIS Commission

In the early morning of 3 October, a fire broke out in a lead-scintillator photon electron identifier situated in the building called Wide Band at Fermilab. The heat and thick smoke prevented immediate action by the Fire Brigade and a delay of 2 hours occurred before the fire could be extinguished. Possible causes of the fire will be presented and lessons to be learnt drawn out.

Monday 2 November

EP SEMINAR

at 16.30 hrs – Auditorium

Charmed D meson lifetime and branching ratio measurements from FNAL Experiment E691

by Johannes RAAB / UC Santa Barbara
and CERN

A large charm sample was collected by experiment 691 at FNAL using the Tagged Photon Spectrometer and silicon μ -strip detectors. The data sample of 100 million events has been completely reconstructed and the analysis for D meson lifetimes and some of the D branching ratios has been completed. The experimental

setup, the reconstruction and analysis, as well as the results will be reported on.

Wednesday 4 November

THEORETICAL SEMINAR

at 14.00 hrs – Theory Conference Room

Non-perturbative approach to scalar-fermion theories

by I. MONTVAY / DESY

The lattice formulation of some chiral fermion theories is considered. The role of the infra-red fixed point structure of the Callan-Symanzik renormalization group equations in the continuum limit is discussed.

Mercredi 4 novembre

SEMINAIRE LEP

à 14.30 hrs – Amphithéâtre LEP
bât. 30, 7e étage

Déposition de niobium en couche mince pour la fabrication de cavités supraconductrices

par N. HILLERET / CERN-LEP

L'utilisation de couches minces de niobium sur un substrat de cuivre permet de réaliser des cavités accélératrices supraconductrices, du type de celles nécessaires pour la phase II du LEP. Les récents progrès effectués dans cette voie seront présentés ainsi que les principaux résultats obtenus.

Wednesday 4 November

CERN COMPUTER SEMINAR

at 16.00 hrs – Auditorium*

Parallel computer architecture overview

by Philip C. TRELEAVEN / Department of
Computer Science, University College London

The commercial golden age of parallel computing that industry prophets have long predicted now seems to be arriving. An increasing number of parallel computer products are appearing in the market place. Their design motivations and market areas cover a broad spectrum : (i) Transaction Processing Systems, such as Parallel UNIX systems (e.g. SEQUENT Balance) for data processing applications; (ii) Numeric Supercomputers, such as Hypercube systems (e.g. INTEL iPSC) for scientific and engineering applications; (iii) VLSI Architectures, such as parallel microcomputers (e.g. INMOS Transputer) for exploiting very large scales of integration; (iv) High Level Language Computers, such as Logic machines (e.g. FUJITSU Kabu Wake) for symbolic computation; and (v) Neurocomputers, such as the Connectionist computers (e.g. THINKING MACHINES Connection Machine) for general-purpose pattern matching applications. This lecture gives an overview of these novel parallel computers and discusses the likely commercial impact of parallel computers.

Philip Treleaven is Professor of Computer Science at University College London. His research interests include parallel computer architecture, new forms of programming languages, fault-tolerant computing, and very large scale integration. He is a European authority on so-called Fifth Generation computers and on national research programmes such

as Japan's FGCS project, ESPRIT and ALVEY. He has also worked at the Japanese Fifth Generation research institute (ICOT) in Tokyo. Treleaven holds a BTech from Brunel University, and MSc and PhD degrees from Manchester University, England.

* Tea and coffee will be provided at 15.30 hrs.

Friday 6 November

VALET-PLUS INFORMATION MEETING

at 9.30 hrs – DD Auditorium
bldg 31, 3-005

All VALET-Plus users, present and future, as well as all those having an interest in its present status, and future plans for its development and use, are invited to attend.

Information : Yves Perrin / DD / 3194

Friday 6 November

MEETINGS ON PARTICLE PHENOMENOLOGY

at 11.00 hrs – Theory Conference Room

A discussion of the measurement of the real part of the $p\bar{p}$ amplitude at the CERN collider

- 1) The UA4 experiment
by G. Matthiae
- 2) The impact picture
by T.T. Wu
- 3) The Odderon interpretation of the data
by B. Nicolescu
- 4) Are we seeing a new threshold in $p\bar{p}$ scattering ?
by A. Martin

Monday 9 November

EF SEMINAR

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

Report on the IEEE 1987 nuclear science symposium in San Francisco

by Sandro MARCHIORO / CERN-EF (et al.)

The talk will cover selected topics from the (parallel) sessions of the conference with emphasis being placed on data acquisition and related subjects.

Monday 9 November

EP SEMINAR

at 16.30 hrs – Auditorium

Radiative corrections to the Z^0 resonance at LEP/SLC and to narrow resonances in e^+e^-

by Giovanni BONVICINI / Univ. of Michigan, Ann Arbor

We review the status of QED corrections to the Z^0 resonance, and show that they can be calculated and incorporated into the comparison with experiment so that there will be no QED uncertainty on the measurements of the Z^0 mass and width at SLC and LEP. Two Monte Carlos used for this analysis are described. We use our results to refit the data of the J/ψ and ψ' , and other charm and beauty resonances, and

find that six quantities in the Particle Data Book change significantly. We conclude discussing possible experimental tests of QED factorization, and the impact of this analysis on forthcoming high precision tests of the Standard Model.

Du 30 novembre au 4 décembre

SEMINAIRE TRAITEMENT DE TEXTE «MICROSOFT WORD» SUR MACINTOSH

- Du lundi au vendredi, 5 demi-journées
- Deux niveaux : (1) Débutants, (2) Avancés
- Les participants devront avoir les connaissances de base du Macintosh
- Nombre de places limité
- Pour tous renseignements et inscriptions, s'adresser à Mme W. Hug / EP, tél. (8)7159, le matin de 08.00 à 12.00 hrs.
- Date limite d'inscription, le vendredi 20 novembre 1987.

TRAINING AND EDUCATION ENSEIGNEMENT

Mardi 3 novembre

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

ENSEIGNEMENT GENERAL

Tél. 2844

Jeudi 5 novembre

de 13.00 h à 13.30 h – Amphithéâtre

Science pour tous

par R. CARRERAS