

SEMINARS SEMINAIRES

Monday 1 February

MEETINGS ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Search for forces weaker than gravity

by E. ADELBERGER / Univ. of Washington,
Seattle

Monday 1 February

EP SEMINAR

at 16.30 hrs – Auditorium

The D0 collider detector at Fermilab : a progress report

by R. RAJA / Fermilab

The D0 detector is the second major colliding detector facility at the Fermilab Tevatron. It makes extensive use of uranium-liquid argon calorimetry and is optimized in its design by considerations of hermeticity. In this talk Monte Carlo techniques employed in the D0 design will be emphasized. Preliminary data from the test beam will be provided.

Tuesday 2 February

PRESENTATION

at 14.00 hrs – DD Auditorium
bldg 31, 3-005

The Vaxstation 8000

by R. STRAUB / Digital Equipment
Corporation SA

There will be a technical presentation of the new 3D High End Workstation. In addition, there will be a demonstration of the Lynx workstation itself.

Mercredi 3 février

PRESENTATION

de 09.00 à 12.00 h et de 14.00 à 17.00 h
Amphithéâtre du SPS, bât. 864, 1er étage

Logiciels PCAD

par Renaud MATHIEU / PCAD, Bruxelles

Le matin, présentation du logiciel PC-LOGS, logiciel de simulation électronique.

L'après-midi, présentation des logiciels PCB, logiciels d'aide à l'étude des circuits imprimés, depuis PCB1 (étude digitalisée), à PCB3 (étude avec placement automatique des composants et autoroutage).

Langues : français, anglais

Renseignements : D. Peron / SPS / 5163, 5210

Wednesday 3 February

LEAR DISCUSSION MEETING

at 14.00 hrs – PS Auditorium
bldg 6, 2-024

CP violation in hyperon decays

by A. PICH, N. HAMANN and
G. BASSOMPIERRE

Wednesday 3 February

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Massless particle production in high energy scattering of strings

by L.N. LIPATOV / Leningrad Nuclear Physics
Institute

In the introduction, some relations between predictions of field and string theories are discussed. The Low theorem for the soft proton bremsstrahlung is generalized to the case of gluon and graviton emission. Using the bosonic string theory as a guide, the generalized Low-Gribov formulae for production of the massless particles with small transverse momenta is obtained. The effective vertices for high-energy massless particle emission in the Yang-Mills theory and quantum gravity are reproduced from dual amplitudes.

Wednesday 3 February

LEP SEMINAR

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

Design and fabrication of the LEP accelerating structure

by I. WILSON / CERN-LEP

The design of the LEP main ring RF accelerating cavity is described. The main RF system design parameters are first presented and explained for LEP phase 1. The choice of frequency and type of accelerating structure is discussed and some basic theory of resonant cavities is given. The details of fabrication are shown in a film.

Wednesday 3 February

CERN COMPUTER SEMINAR

at 16.00 hrs – Auditorium*

The future of algebraic computation

by Anthony C. HEARN / The RAND Corporation

Computer algebra is at an important crossroads. The field began over a quarter of a century ago with a number of unwieldy, unsophisticated systems that were available only on large mainframes with difficult and expensive access. The future promises a world of cheap, powerful workstations with integrated programming environments supporting a mixture of graphical, numerical and symbolic computations of considerable sophistication. At present, we are experiencing the difficult transition between these two worlds. In this talk, we shall consider how we reached the present situation, and where we should be by the end of this century. The effect of these developments on theoretical physics research will also be discussed.

The speaker

Anthony Hearn is a member of the Corporate Research Staff at the RAND Corporation in Santa Monica, California. He received his early education in Australia before obtaining a PhD degree in Theoretical Physics from Cambridge University in 1962. From 1962 until 1969 he was a Research Associate in Physics at Stanford University, except for a year (1964-5) spent at the Rutherford Laboratory in England. In 1969 he joined the University of Utah, first in Physics, then from 1973 until 1980 as Professor and Chairman of the Department of Computer Science. He joined RAND in July, 1980 as Head of the Information Sciences Department; in August 1984 he assumed his present position. Dr Hearn is best known for his pioneering work on the development of the algebraic manipulation program REDUCE. His current interests include algebraic manipulation, computer networking and scientific computation.

* Coffee and tea will be served at 15.30 hrs.

Thursday 4 February

TECHNICAL PRESENTATION

at 10.00 hrs – DD Auditorium
bldg 31, 3-005

VMES (F) and Chronologic (F) seminars

Morning presentation : Transputer INMOS (GB), the VME board Neurone

- 10.00 *Presentation of the company VMES, its activities and references*
- 10.10 *Product presentation with demonstrations*
- 10.30 *Parallel processing – Transputer INMOS – Real time image processing with Neurone VME board – Demonstration*
- 11.30 *Open questions*

Afternoon presentation : Desktop publishing using an IBM PC or compatible computer

- 14.00 *Presentation of the company VMES, its activities and references*
- 14.10 *Product presentation with demonstrations*
- 14.30 *Desktop publishing using MS-WINDOWS and VMES image processing board in IBM PC or compatible computer*
- 16.00 *Open questions*

Languages : English or French according to the audience
Information : M. Diraison / FI / 4585

Vendredi 5 février

PRESENTATION TECHNIQUE

de 10.00 h à 12.00 h – Amphithéâtre DD
bât. 31, 3-005

RCI (F), fabricant de circuits imprimés double face trous métallisés, multicouches et circuits en technologie multiwire, présente sa production (cassette vidéo, échantillons). La solution Multiwire est en fait l'application parfaitement maîtrisée et fiabilisée d'une technique électronique simple dans son principe, mais de mise en oeuvre très délicate, pour résoudre les problèmes les plus complexes de circuits à très haute densité. Multiwire, c'est le câblage optimisé et débarrassé des anciennes contraintes de routage, parce que les fils de 0.10 mm de diamètre peuvent se croiser et se superposer. On obtient ainsi des densités d'interconnexions qu'aucune autre méthode de fabrication ne permet : on peut implanter des composants jusqu'à saturation.

Langue : français

Renseignements : M. Diraison / FI / 4585

Tuesday 9 February

LEP MACHINE ADVISORY COMMITTEE

Open session

at 09.00 hrs – LEP Auditorium

- 09.00 *Status of beam instrumentation by M. Placidi*
- 10.00 *Status of power converters and their controls by H. Isch*

Closed session

at 11.30 hrs – Sixth Floor Conference Room,
Main building

Tuesday 9 February

PROTON SYNCHROTRON AND SYNCHRO-CYCLOTRON COMMITTEE

Open session

at 14.30 hrs – Council Chamber

1. *Status report and proposal for a continuation of experiment IS20 : Mossbauer studies of implanted impurities in solids (Aarhus-Groningen-ISOLDE collaboration; PSCC/88-1/P109; PSCC/88-2/S109; G. Weyer).*
2. *Status report and request for beam time for experiment IS80 : Study of nuclear moments and mean square charge radii by collinear fast-beam laser spectroscopy (Bombay – CERN – ISOLDE collaboration – Mainz – New York – Nyköping; PSCC/88-3/P110; 88-4/S110; R. Neugart).*
3. *Status report and request for beam time for experiment IS130 : High-precision direct mass determination of unstable isotopes (CERN – GSI – Mainz – Montreal – Orsay; PSCC/88-5/P111; 88-6/S111; H.-J. Kluge).*
4. *Measurements of wake-riding electrons in anti-proton-carbon-foil collisions (Tokyo – Aarhus – CERN; PSCC/87-39/P108; 87-40/S108; Y. Yamazaki).*
5. *Antiproton induced fission and fragmentation of nuclei (Bonn – Florida – Mississippi – München – Virginia; PSCC/88-8/P112; 88-9/S112; T. von Egidy).*

Closed session

Wednesday 10 February

at 09.00 hrs – Sixth Floor Conference Room,
Main building

Tuesday 9 February

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium

Quark mixings and ϵ'/ϵ : a reconfirmation of the standard model

by Guido ALTARELLI / CERN

Mercredi 10 février

SEMINAIRE LEP

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

**Aspects techniques et particularités des réseaux
de distribution d'eau déminéralisée**

par E. APPEL / CERN-LEP

EF SPRING SEMINARS 1988

EF Division is organizing a new series of seminars to take place this spring.

Preliminary programme :

SEMINAIRES EF DU PRINTEMPS 1988

Ce printemps la division EF organise une nouvelle série de séminaires.

Programme préliminaire :

29 February	Event viewing for the ALEPH detector	Hans Drevermann / CERN-EF
7 March	Polarization at LEP	Daniel Treille / CERN-EP
14 March	Design consideration for CMOS integrated circuits in future Particle Physics Experiments	Pierre Jarron / CERN-EF
21 mars	GSS : Système de surveillance générale des zones d'expérience LEP	Edo Sbrissa / CERN-EF
28 March	A thermodynamic approach to cryogenics	Jörg Schmid / CERN-EF
11 April	The role of microelectronics, microprocessors and computers in present-day experiments	Philippe Gavillet / CERN-EF
25 April	The deep underwater muon and neutrino project and the successful short prototype string experiment	Peter Grieder / Univ. of Bern

Unless otherwise indicated, the seminars will take place on Mondays from 11.00 hrs to 12.00 hrs in the EF Conference Room, Bldg 13, 2-005.

Sauf avis contraire, les séminaires auront lieu le lundi de 11.00 h à 12.00 h dans la Salle de Conférence EF, Bât. 13, 2-005.

TRAINING AND **EDUCATION** **ENSEIGNEMENT**

ENSEIGNEMENT GENERAL Tél. 2844

Mardi 2 février

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)

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