

SEMINARS SEMINAIRES

Lundi 5 novembre

PRESENTATION TECHNIQUE

09.00 à 15.30 h – Bus, parking PTT, bât. 63

PHÖNIX ELEKTRIZITÄTSGESELLSCHAFT H. KNÜMAN GmbH & Co. KG. (D), représenté par **Elektro-Phoenix AG (CH)**, propose une démonstration de matériel d'interconnexion : blocs de jonction... traditionnels, de puissance, pour sécurité augmentée, spéciaux, pour l'électronique – modules pour l'électronique – systèmes d'interfaces.

Langues : allemand, français

Renseignements : M. Diraison / FI / 4585

Monday 5 November

EF SEMINAR

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

Data communication networks in CERN

by J.M. GERARD / CERN

The continuing growth in power and capabilities of mini-computers and microcomputers has brought with it an increased demand for effective data communication networks. CERN currently has many such networks, some of which are for general use, others for special purposes. The seminar will begin with a brief historical review of the main networks at CERN, especially those which are for general use. Emphasis will be on the practical uses as well as the underlying technology. The current situation will be described, with a personal view of the merits and faults of this situation. Finally, looking to the future, an overview of the current intensive effort to create standards, both hardware and software, will be followed by a forecast of how these standards may affect networking at CERN.

Monday 5 November

PRESENTATION

at 14.00 hrs – DD Auditorium, bldg. 31, 3rd fl.

Digital introduces the VAX 8600

by Norman VALENTINE / Digital, Geneva

The VAX 8600 has just been announced by Digital Equipment. The 8600 has over four times the power of the VAX-11/780 and represents the new high end of the VAX family. It offers full compliance with the VAX architecture. The presentation will include an overview of the architecture of the system and some information on its performance and I/O throughput.

Monday 5 November

EP SEMINAR

at 17.00 hrs – Auditorium

Hadron production in 280 GeV muon-proton scattering

by P. RENTON / Nuclear physics laboratory,
University of Oxford

In addition to the detailed measurements of the structure functions, the European Muon Collaboration is studying hadron production in 280 GeV deep-inelastic muon-proton interactions. These data were taken with the apparatus optimised for the study of final state hadrons (NA 9 experiment). The use of a streamer chamber gives almost 4π acceptance for charged hadrons and time of flight plus Cherenkov counters give particle identification over a wide range of momenta. Inclusive distributions of $\pi^\pm$, $K^\pm$, p , $\bar{p}$, K^0 , Λ and $\bar{\Lambda}$ have been measured. The extent to which the ideas of the Quark-Parton model work, both in these interactions and by comparison with other interactions, is discussed. Evidence for the existence of soft-gluon effects is obtained from a study of the correlations in transverse momenta between charged particles.

Tuesday 6 November

SPS EXPERIMENTS COMMITTEE

Open session

at 09.00 hrs – Auditorium

1. Status Report on PS 190B (Search for quark-gluon plasma with the plastic ball detector in a O^{16} -beam; H.H. Gutbrod).
2. Status report on PS 190A (Measurement of light ion induced reactions; H. Ströbele).
3. Study of high energy nucleus-nucleus interactions using the omega spectrometer equipped with a particle high p_T detector (Athens-Bari-Birmingham-CERN-Collège de France-Paris (University) Collaboration; R. Zitoun; SPSC 84-76/P 206.)
4. Study of jet structure in high mass diffraction at the SPS Collider (University of California, Los Angeles); P. Schlein; SPSC/84-82/P 208.

Closed session

at 14.00 hrs, 6th floor Conference Room,
Administration Building (to be continued on
Wednesday 7 November at 09.00 hrs).

Mardi 6 novembre

PRESENTATION TECHNIQUE

10.00 à 16.00 h – bât. 17, salle 1-007

CETIM (F) propose en présentation des progiciels d'aide à la conception et au dimensionnement des composants mécaniques sur micro-ordinateurs.

– Démonstration sur les progiciels CA.ST.OR suivants :

Progiciels	Domaines d'application
CA.ST.OR BE 2D/E	Analyse élastique linéaire de structures continues bidimensionnelles (planes ou axisymétriques) par la méthode des éléments finis. Le logiciel comprend les modules suivants : - maillage automatique, - calcul en élasticité linéaire, - tracé des résultats.
CA.ST.OR BE SD./ Option Poutres	Calcul de charpentes dans le domaine linéaire élastique pour des problèmes statiques.
CA.ST.OR R.D.M.	Aide à la conception par l'application de formules de résistance des matériaux pour les cas suivants : - plaques circulaires, - coques cylindriques, - treillis, - poutres, - propriétés géométriques des sections, - calcul de coefficients de concentration de contraintes.

– Présentation des développements en cours au CETIM sur d'autres progiciels exploitables sur micro-ordinateurs.

Mardi 6 novembre

PRESENTATION TECHNIQUE

14.00 à 16.00 h – Atelier principal, bât. 100

ECKOLD W. AG (CH) propose en démonstration : outil à border – outil pour l'étrépage de collets sur tube.

Langues : allemand, français

Renseignements : M. Diraison / FI / 4585

Wednesday 7 November

THEORETICAL SEMINAR

at 14.00 hrs – TH Conf. Room

Light fermions in composite supermultiplets

by A. MASIERO / CERN

We apply effective Lagrangian methods to the study of confining SUSY gauge theories. After pointing out some peculiar differences with respect to QCD-like theories, we study the splitting induced by soft SUSY breakings inside the light composite supermultiplets. In models with unbroken chiral symmetries, for a suitable breaking, the lightest states are spin 1/2 fermions. A prototype model for one fermionic family is discussed.

Vendredi 9 novembre

PRESENTATION TECHNIQUE

10.00 - 16.00 h – Auditorium DD, bât. 31, 3^e ét.

DATASUD SYSTEMES ET CHRONOLOGIC (F) proposent une conférence (de 10.00 à 12.00 h) suivie d'une démonstration (14.00 à 16.00 h) : cartes et châssis VME (VME boards and crates) – systèmes de développement multiutilisateurs à base d'un disque dur

(Multi user hard disk development systems) – systèmes industriels pour le traitement d'images (Industrial image processing equipment).

Langue : français

Renseignements : M. Diraison / FI / 4585

Monday 12 November

EF SEMINAR

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

Quarkonia

by G. CONFORTO / CERN and INFN Florence

Monday 12 November

EP SEMINAR

at 17.00 hrs – Auditorium

QCD effects and non-perturbative effects in deep inelastic neutrino and antineutrino charged current interactions

by Teresa BOLOGNESE / DPHPE, Saclay

Recent results from the CERN WA2S Antineutrino Deuterium Experiment are presented. The deuterium target allows determination of the quark and anti-quark structure functions of the proton and neutron separately. Their Q^2 evolution is interpreted in terms of QCD. Transverse momentum balance of produced hadrons allows separation of the effects of primordial quark transverse momentum in the nucleon and those of soft gluon emission. A three-jet structure, observed for events with $W^2 > 50 \text{ GeV}^2$ and with a high transverse momentum may be interpreted in terms of hard gluon bremsstrahlung.

Tuesday 13 November

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium

What can we learn from the EMC effect ?

by C.H. LLEWELLYN SMITH / Oxford University

Tuesday 13 November

PROTON SYNCHROTRON AND SYNCHRO-CYCLOTRON COMMITTEE

Open session

at 09.00 hrs – Council Chamber
(continuing at 14.00 hrs)

1. Information from the Chairman.
2. Status report on expt. IS80 (Study of nuclear moments and mean square charge radii by collinear fast-beam laser spectroscopy; Göteborg-Mainz-ISOLDE collaboration; PSCC/84-47/M203; N. Neugart).

3. *Proposal : Larmor precession measurement of the nuclear g-factor of radium isotopes in fast beams (Lyon-Mainz-Orsay-ISOLDE Collaboration; PSCC/84-48/P76; 84-49/S76; J.L. Vialle).*
4. *Proposal : Laser spectroscopy at Z=50 (Mainz-ISOLDE collaboration; PSCC/84-50/P77; 84-51/S77; G. Huber).*
5. *Proposal : Multipion detection in collinear laser spectroscopy of ISOLDE beams (Troitzk-Mainz-ISOLDE collaboration; PSCC/84-37/I68; 84-52/P78; 84-53/S78; E.W. Otten).*
6. *Proposal : Nuclear orientation of radon isotopes (Princeton-Kingston-Göteborg-ISOLDE collaboration; PSCC/84-54/P79; 84-55/S79; F. Calaprice).*
7. *Addendum to proposal P64 : Measurements of the ratio between the double- and single-ionization cross-sections of helium by antiproton impact (Aarhus-CERN-Stockholm; PSCC/84-46/P64 Add. 2; E. Uggerhoj).*
8. *Status reports on LEAR experiments :*
PS 173 : Measurement of antiproton-proton cross-sections at low antiproton momenta (Heidelberg MPI-Heidelberg Univ.; T. Walcher).

PS 174 : Precision survey of X-rays from antiproton-proton (antiproton-deuteron) atoms (Amsterdam NIKHEF-Birmingham-RAL-Williamsburg; J.D. Davies).

PS 179 : Study of the interaction of low-energy antiprotons with nuclei using a streamer chamber (Dubna J.I.N.R. - Frascati-Padova-Pavia-Torino; G. Piragino).

9. Reports from PS and SC Co-ordinators.

Closed session

at 16.00 hrs – 6th floor Conference Room
(continuing at 09.00 hrs on Wednesday 14 November).

Mercredi 14 novembre

REUNION OUVERTE DU LEP

à 14.30 h – Auditorium du LEP
(dernier étage du bât. 30)

1. *Annonces et réponses aux questions.*
2. **Le système de séparation des faisceaux dans le LEP**
par K.H. KISSLER

INFORMATIONS

GENERALES

GENERAL INFORMATION

GUICHET PTT – SITE DE PREVESSIN

La Direction des Postes de l'Ain nous communique une modification des heures d'ouverture du guichet PTT sur le site de Prévessin.

A partir du 2 janvier 1985 l'horaire sera le suivant :

08.30 à 15.00 h du lundi au vendredi,
sans interruption.

Département du Personnel

POST OFFICE – PREVESSIN SITE

The 'Direction des Postes de l'Ain' has informed us that the opening hours of the Post Office on the Prévessin site will be modified.

As from 2 January 1985 the following schedule will be observed :

08.30 to 15.00 hrs Monday to Friday,
without interruption.

Personnel Department

RELATIONS PUBLIQUES

France-Culture diffuse une série de quatre interviews réalisées au CERN à l'occasion du 30^e Anniversaire. Les deux derniers programmes (nous n'avions pas été avertis des dates de diffusion) devraient se situer les **2 et 9 novembre à 19.30 h** sous le titre 'les grandes avenues de la science moderne'.

Fréquence 96,7 MHz.

Tél. 4101

TRAINING AND EDUCATION ENSEIGNEMENT

ENSEIGNEMENT GÉNÉRAL Tél. 2844

Jeudi 8 novembre

de 13.00 h à 13.30 h – Amphithéâtre

Science pour tous

par R. CARRERAS

ACADEMIC TRAINING Tél. 2844

12, 13, 14 and 15 November

11.00 hrs to 12.00 hrs – Auditorium

Critical phenomena

by E. BREZIN / CEN, Saclay

Many ideas in contemporary particle physics make reference to the theory of phase transitions; the Higgs mechanism or the finite temperature deconfinement transition of QCD are well-known examples. Furthermore quantum fluctuations, and thermal fluctuations near a critical point have many features in common and the construction of a renormalizable field theory may be viewed as the control of a critical point. The modern theory of critical phenomena – the renormalization group formalism – largely based on ideas due to K. Wilson, will be reviewed in these lectures at an introductory level.