

SEMINARS SEMINAIRES

Tuesday 23 February

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

A crisis in the parton model ?

by Elliot LEADER / Birkbeck College, London

*A careful re-analysis of the recent EMC polarized target experiment, carried out in the hope of avoiding the startling conclusion that only **one eighth** of the proton's spin is due to its valence quarks, alters the EMC result quite insignificantly. Taken at face value the EMC result has far reaching implications for the parton model. These are discussed and their phenomenological consequences analysed. The deep importance of complementary experimental checks is stressed.*

* Tea and coffee will be provided at 16.00 hrs.

Wednesday 24 February

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference room

Gauss law and symmetry restoration in lattice QCD at strong coupling

by Luis OLIVER / LPTHE, Paris-Sud, Orsay

We study the restoration of global symmetries of lattice QCD at finite temperature and chemical potential. The Hamiltonian of $SU(N_c)$ QCD in the $A^0 = 0$ gauge has to be supplemented by the Gauss law constraint, that thermal excitations must satisfy. We examine the problem in the strong coupling limit and at fixed N_c . The free energy to be minimized must be defined by traces over states restricted to be local colour singlets. The critical curve in the T - μ plane depends on N_c : the critical temperature $T_c(\mu=0)$ increases with N_c , but the critical chemical potential $\mu_c(T=0)$ remains constant $\mu_c = m_0$, m_0 being the dynamical mass at $T = \mu = 0$. Relative to an unconstrained free energy, the effect of the Gauss law is to increase the critical temperature, as the effective number of degrees of freedom that can be thermally excited decreases. On the contrary, the critical temperature decreases with the number of massless flavours N_f .

Wednesday 24 February

LEP SEMINAR

at 14.30 hrs – LEP Auditorium

Planning, follow-up and feedback of data concerning the LEP installation project

by S. CAPPER / CERN-LEP

1988 is a critical year for installation. Numerous activities are being executed at different LEP sites, and it

is becoming increasingly difficult to follow installation progress with precision. Planning, follow-up and data feedback are therefore essential to produce an accurate picture which changes daily. The talk will cover the work which has been carried out using tools such as ORACLE, micro-computers used for follow-up in the LEP tunnel, and data which is transferred directly from the LEP site to the SCL (Salle de contrôle logistique) concerning the personnel access control system, and handling means such as cranes, lifts and the monorail.

Jeudi 25 février

PRESENTATION TECHNIQUE

de 10.00 à 16.00 h – Amphithéâtre LEP

René Faigle ASA (CH), représentant Nashua (USA, GB, J), propose en démonstration :

Photocopieurs 4100, 4115, 7125, 5130 et 7140.
Caractéristiques générales selon les modèles : format maxi. B4 ou A3, introducteur automatique pour recto verso, réductions et agrandissements à taux fixes, zoom de 50 à 200%, papier 60-140 gr., pas de marge, édition, trieuse 20 cases, système modulable.

Télécopieurs F-720 et 730

Caractéristiques générales selon les modèles : CCITT G3/G2 et G1, vit. trs. 9600-2400 bits/s, largeur max. format orig. 280 et 305 mm, format réception 216 et 256 mm, introd. autom. de doc. pour 30 et 50 feuilles, numéros mémorisés 30 et 100, répétition autom. du n° pour ligne occupée, trs. en gr. de destin., mémoire 30 pages A4, appel à distance (polling), résolut. im. (normale, fine et superfine), fonction copie, résolution des gris (photos), journal automatique, confirm. aut. de la trs., trspréprogrammée à des heures différentes, interface RS232C, rapport d'erreur de trs. et d'utilisation.

Langues : allemand, anglais, espagnol, français

Renseignements : M. Diraison / FI / 4585

Thursday 25 February

CERN COLLOQUIUM

at 16.30 hrs – Auditorium*

The protein as a physics laboratory

by Hans FRAUENFELDER / Department of Physics, University of Illinois, Urbana-Champaign

Physics has two exciting frontiers, unification of forces and complexity. Complexity appears in many different situations and systems, from glasses and spin glasses to neural networks and computer problems. Proteins, the machines of life, form a laboratory in which many aspects of complexity can be studied in detail. After a brief review of the structure and function of some simple proteins, a number of results obtained by studying protein phenomena over wide ranges in temperature, pressure and time will be sketched and similarities between proteins and glasses will be discussed.

* Tea and coffee will be provided at 16.00 hrs.

Friday 26 February

MEETINGS ON PARTICLE PHYSICS PHENOMENOLOGY

at 11.00 hrs – TH Conference room

Scaling violations in deep inelastic scattering and QCD (I)

Muon data : EMC – R.P. MOUNT / Orsay
BCDMS – M. VIRCHAUX /
Saclay

Friday 26 February

CAS ACCELERATOR SEMINAR

at 14.30 hrs – Auditorium

Upgrade of the Daresbury SRS to high-brilliance optics

by V. SULLER / Daresbury Laboratory

After a brief summary of the original SRS optics, details of the modifications carried out to produce high brilliance will be reviewed and first operational results presented.

Monday 29 February

EF SEMINAR

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

Event viewing for the ALEPH detector

by Hans DREWERMANN / CERN-EF

The TPC and the calorimeters of ALEPH produce direct three-dimensional data. Techniques will be discussed for showing such three-dimensional data on (two-dimensional) screens; in particular on simple workstations.

Tuesday 1 March

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium

New results on charm in hadroproduction

by S. KWAN / CERN-EP

Wednesday 2 March

LEP SEMINAR

at 14.30 hrs – LEP Auditorium

Smoke control for the underground areas of LEP

by M. HATCH / CERN-LEP

Wednesday 2 March

LEAR DISCUSSION MEETING

at 15.00 hrs – PS Auditorium
bldg 6, 2-024

C quark physics with $p\bar{p}$ at low energy

by M. POULET / Annecy, P. KROLL / CERN,
and J.M. BROM / Strasbourg

TRAINING AND EDUCATION ENSEIGNEMENT

ENSEIGNEMENT GENERAL

Tél. 2844

Jeudi 25 février

de 13.00 h à 13.30 h – Amphithéâtre

Science pour tous

par R. CARRERAS

Mardi 1er mars

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 les 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

SERVICES EDUCATIFS

Un certain nombre d'exemplaires du

Rapport d'activité et plan annuel de formation

approuvé par le Comité de Management dans sa séance du 12 novembre 1987, peuvent être obtenus :

- auprès des secrétariats de Division
dès le vendredi 19 février,
- en téléphonant aux Services Educatifs, 3674
(le matin).