

SEMINARS SEMINAIRES

Lundi 25 juin

PRESENTATION TECHNIQUE

de 09.00 à 12.00 hrs & de 14.00 à 16.30 h

Parking bât. 904, site de Prévessin

Outils pour industrie et garage présenté par FACOM (F) : dynamométrique, d'extraction, électronique, électrique, pneumatique, etc.

Langue : français

Renseignements : M. Diraison / FI / 4585

Lundi 25 juin

PRESENTATION TECHNIQUE

de 10.00 à 16.00 h – Amphithéâtre DD
bât. 31, 3-005

Eurodat (F), spécialisé en format DAT (Digital Audio Tape) permettant la sauvegarde de 1,2 gigaoctets sur une cassette format carte bancaire, propose la démonstration de lecteurs compatibles avec la plupart des systèmes existants (MAC, PC, PS2, DEC, VAX, SUN, etc.) et particulièrement bien adaptés aux réseaux (NOVELL, AppleShare, PC Lan, etc.

Produits en démonstration : DataVault de TECMAR (USA), cassettes MicroDat d'Eurodat (J/F).

Langue : français

Renseignements : M. Diraison / FI / 4585

Monday 25 June

PROTON SYNCHROTRON AND SYNCHRO-CYCLOTRON COMMITTEE

Open session

Monday 25 June

at 14.00 hrs – Council Chamber

1. *A review of the ISOLDE programme (B. Jonson).*
2. *Proposal : Precision measurement of the energies and line shapes of antiprotonic Lyman and Balmer transitions from hydrogen and helium isotopes (Jülich - PSI Villigen - CERN - Islamabad - Mississippi - Gaithersburg - Neuchâtel; PSCC/90-9/P124; 90-10/S124; D. Gotta).*
3. *Progress Report on Expt. PS 196 - Precision comparison of $\bar{p}$ and p masses in a Penning Trap (Harvard - Mainz - Washington; G. Gabrielse).*

Closed session

Monday 25 June

at 16.00 hrs – Salle B (bldg 61, 1st floor)

continued Tuesday 26 June

at 09.00 hrs – 6th floor Conference Room

Tuesday 26 June

CAS ACCELERATOR SEMINAR

at 14.00 hrs – Auditorium

SLC in the 90s

by Nan PHINNEY / SLAC

The SLC is the first electron-positron linear collider. It is a difficult and exciting experiment in accelerator physics. The SLC made the first observation of beam-beam deflections and of beamstrahlung radiation as well as the first successful application of techniques such as BNS damping. This seminar will discuss the technical challenges involved in producing and colliding very small (2-3 micron) beams at the SLC and outline plans for future improvements in luminosity.

Tuesday 26 June

TECHNICAL SEMINAR

at 14.00 hrs – LEP Auditorium

bldg 30, 7th floor

Insulation co-ordination within low-voltage systems

by L. SYMONS / CERN-AS/LO

Advance information on the revision of the international standard IEC 664 – nearly equivalent to DIN VDE 0110 (1989). This standard is applicable for all electronic equipment or electrical installations with :

- *rated voltages up to 1500 Vdc or 1000 Vac*
- *frequencies up to 30 kHz*
- *up to 2000 m above sea level.*

The determination of the clearances and creepage distances introduces fundamental concepts as over-voltage category, pollution degree and comparative tracking index. The clearance verification is done with an impulse withstand voltage (1.2/50µs) of appropriate energy.

Tuesday 26 June

PRESENTATION

at 14.00 hrs – DD Auditorium

bldg 31, 3-005

The HP/Apollo 68040 'Teamstations'

by M. BENARD / Hewlett-Packard

One year after the merge of Apollo with Hewlett-Packard, the workstation division has just announced the merged products. These machines are based on the very powerful Motorola 68040 processors and are fully compatible with previous 68020 and 68030 based Apollo and HP machines. The new Motorola architecture can deliver very high

floating-point performances as well as high I/O capabilities (Disk space, peripherals, etc.). Existing HP and Apollo systems will benefit from these performances via an attractive board upgrade program. The presentation will include technical as well as pricing indications.

CN Organizer : A. Silverman

Tuesday 26 June

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Laser spectroscopy of hydrogen and antihydrogen

by T.W. HAENSCH / Max Planck Institut

As the simplest of the stable atom, hydrogen permits unique confrontation between experiment and theory. High resolution laser spectroscopy of 1S-2S two-photon transition in a cold hydrogen beam has reached a resolution of 5 parts in 10^{11} , with further dramatic improvements within reach. Precise measurements and comparisons of optical transition frequencies promise accurate new values for the Rydberg constant, the electron/proton mass ratio and the charge radius of the proton. Experiments with cold trapped hydrogen atoms open intriguing prospects for future precision spectroscopy of antihydrogen. Such experiments would provide stringent tests of basic symmetry laws

* Tea & coffee will be served at 16.00 hrs.

Mercredi 27 juin

PRESENTATION TECHNIQUE

de 09.00 à 12.00 h & de 14.00 à 16.30 h

bât. 73, 2-027

Les firmes VAT et COMVAT (CH), spécialistes du vide et de l'ultravide, présentent leur programme de fabrication : vannes à vide, soufflets soudés et compensateurs.

Langues : allemand, anglais, français

Renseignements : M. Diraison / FI / 4585

Wednesday 27 & Thursday 28 June

WORKSHOP ON THE FUTURE OF LOW ENERGY ANTIPROTON PHYSICS AT CERN

at 09.00 hrs – LEP Auditorium

Wednesday 27 June

09.00 Introduction and overview
R. Landua

Working Group 'Non-perturbative QCD'

09.45 Charmonium physics with antiprotons
M. Macri

10.15 Meson spectroscopy and search for exotics between 2 and 4 GeV c.m. energy
C. Amsler

10.45 Coffee break

11.15 H particle search in $p\bar{p}$ annihilation at rest
K. Roehrich

11.35 Light meson spectroscopy by differential measurements
U. Gastaldi

11.55 Physics possibilities with polarized protons and antiprotons
R. Bertini

Working Group 'Antiproton-Nuclear Physics'

14.00 Strategies for H particle hunting
C. Guaraldo

14.40 New theoretical approach to Pontecorvo reactions
A. Kaidalov

15.00 Experimental study of Pontecorvo reactions
A. Rotondi

15.30 Multinucleon annihilation in antiproton-nuclear interactions
J. Vandermeulen

16.10 Coffee break

16.40 Color Transparency
A. Kaidalov

Thursday 28 June

Working Group 'CP Violation'

09.00 A possible scheme to study CP Violation in the $\Lambda\Lambda$ system
N. Hamann

Possible Future Antiproton Facilities

10.00 LEAR and SUPERLEAR
P. Lefevre

10.30 Coffee break

11.00 Plans at FERMILAB
G. Smith

11.30 Polarized antiprotons (FILTEX)
E. Steffens

Working Group

'Physics with ultra-low energy antiprotons'

14.00 Gravitational frequency shift and CPT tests in antimatter systems
R. Hughes

14.45 Antihydrogen production in a Penning trap
G. Gabrielse

15.10 Initial spectroscopic experiments with antihydrogen produced in laser-induced recombination
H. Poth

15.30 Possible first experiments with a keV antihydrogen beam
B. Deutch

15.50 Coffee break

16.20 Strong field QED studies with LEAR
D. Gotta

17.05 Antiproton-atom collisions : Future possibilities at LEAR
K. Elsener

17.35 *Towards an ultra-low experimental antiproton facility at LEAR*
J. Eades

Wednesday 27 June

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Domain walls in QCD at and above the finite temperature transition point

by A. PATKOS / CERN & Eotvos University

The transition from the confining and chirally broken hadronic phase to a chirally symmetric plasma is predicted to be of first order both in the limit of infinitely heavy quark sources and in the chiral limit of massless dynamical quarks. The characterization of the domain walls between the two phases at coexistence is important for applications in cosmology (e.g. the nucleation of hadronic bubbles in the cooling Universe) and also in heavy-ion collisions. The first part of the talk deals with order-disorder type domain walls which are characterized by the profile of suitable order parameters of the quark-hadron phase transition. Quantitative estimates for the surface tension and for the wall-thickness will be presented. In the second part interfaces between differently ordered domains will be discussed. Results of a detailed MC-investigation of the phenomenon of complete wetting in the three-dimensional, three-state Potts model will be discussed with implications on the high-temperature phase of QCD.

Wednesday 27 June

CN SEMINAR

at 16.00 hrs – DD Auditorium
bldg 31, 3-005

BookMaster, IBM's powerful text processor

by Joan DUNKIN / IBM Yorktown Heights
Research Centre

BookMaster is the text formatting component of the SGML/BookMaster text processing system which is used on IBM VM/CMS at CERN. After a brief historical introduction the main characteristics of the system will be described and it will be explained how to use them efficiently. A few of the topics treated are :

- Building personal page layout with style files
- Structuring large documents
- What is DVCF (Document Version Control Facility)
- What to do and not to do with tables
- The Bibliography Package OPCIT.

Joan Dunkin has been involved in the development of the BookMaster text processing system for a long time and has a long experience with teaching users how to use the system efficiently.

CN Organizer : N. Cremel

Thursday 28 June

SPECIAL SEMINAR

at 16.30 hrs – Auditorium*

Recent developments in high-speed CMOS A/D conversion

by P.R. GRAY / University of California

This talk will summarize recent developments in A/D conversion techniques suitable for CMOS implementation at video rates and above, i.e. sampling rates of 15 MHz to > 100 MHz. Full parallel, two-step parallel, pipelined, self-calibrated pipelines, and parallel pipeline arrays will be described. Fundamental limits on sampling circuits, comparator delays, and gain blocks as a function of technology feature size will be discussed.

* Tea & coffee will be served at 16.00 hrs.

Vendredi 29 juin

PRESENTATION TECHNIQUE

de 10.00 à 12.00 h
Amphithéâtre DD, bldg 1, 3-005

Evans & Sutherland Sarl (F), représentant E&S Computer Corporation (USA), spécialiste des systèmes de modélisation, de simulation et de visualisation avancés, propose en démonstration sa nouvelle gamme de stations graphiques 3 D, ESV.

Caractéristiques

Exploration en temps réel sous forme d'images couleur haute-résolution, association des grands standards du marché UNIX, Phigs, Phigs +, X-window, Motif, Pex (natif) avec la qualité graphique (antialiasing intégré).

Présentation

10 minutes vidéo, 30 minutes exposé, suivis de démonstration.

Langue : français

Renseignements : M. Diraison / FI / 4585

Friday 29 June

MEETING ON

PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Soft hadronic interactions in the quark-gluon string picture

by A.B. KAIDALOV / ITEP, Moscow

A model based on the 1/N-expansion in QCD and in the string picture of hadronic interactions at large distances is developed. Total and elastic cross-sections, multiplicity distributions, inclusive cross-sections and other characteristics of multi-particle production of differently flavoured particles in high energy hadronic collisions are described. Predictions for LHC and SSC-energies are given. Hadron-nucleus and nucleus-nucleus interactions are considered in the same scheme.