

SEMINARS SEMINAIRES

Monday 21 May

CN PRESENTATION

at 10.30 hrs – CN Auditorium
bldg 31, 3-005

Apollo Operating Systems

by Mike GREATA / Hewlett Packard,
Chelmsford, USA

The presentation will focus on the Apollo operating systems. First the Aegis structure will be reviewed as well as the first implementations of Domain/IX (Unix V.2 and BSD4.2 on Apollo platform). Then the move to native UNIX and the transition to SR10 will be presented. Finally there will be a discussion about the future of Domain/OS and the move to OSF. The presentation will be followed by a question and answer session.

Mike Greata was one of the three founders of Apollo Computer Inc. in 1981. He was R&D Vice President of Apollo until 1989. He is now responsible for the total RISC program for Hewlett Packard in Chelmsford, where the Apollo and HP teams were merged in November 1989.

Monday 21 May

SPECIAL PS SEMINAR

at 11.00 hrs – PS Auditorium
bldg 6, 2-024

Observations of the 'PSR transverse instability' and current operating status of the Los Alamos Proton Storage Ring

by David NEUFFER / Los Alamos National Laboratory

An instability has been observed in the Los Alamos Proton Storage Ring (PSR) which causes fast beam loss accompanied by large transverse oscillations, in both unbunched and bunched beam conditions. Recent observations and calculations indicate that the instability is an e-p instability, driven by background electrons trapped within the proton beam, although previous calculations indicated that the e-p instability should not occur with bunched beam. The apparent discrepancy is discussed, and a possible resolution is suggested. Future plans for observation and treatment of the instability will also be discussed. The current operating status of the PSR will also be reviewed.

Monday 21 May

PRESENTATION

14.00-17.00 hrs* – CN Auditorium
bldg 31, 3-005

Latest DEC RISC Announcements

by N. BOGSTAD, D. LAWSON / Digital Equipment SA

Hardware update : this presentation will cover new hardware announcements. New RISC servers and especially the DECstation 5000 will be presented including some benchmark figures based on benchmarks done at CERN. ULTRIX V.4.0 update : this presentation will cover the latest version of Ultrix which was recently announced. Ultrix version 4 is a new major release of Digital's Unix offering. This version has many new features including symmetric multi-processing, C2 security, embedded SQL and lots more. Network Application Support : Digital's strategy for computing in the 90s is based on a concept called NAS. This presentation will show how these new announcements fit into the NAS strategy. A DECstation 5000 will be demonstrated showing some of the graphic capabilities, OSF/Motif and a graphical shell.

* including a 30 min. break

Mercredi 23 mai

SEMINAIRE PS

à 11.00 h – Amphithéâtre PS
bât. 6, 2-024

Résultats de tests à forts gradients dans des structures accélératrices en bandes au Laboratoire de l'Accélérateur Linéaire d'Orsay par G. BIENVENUE / LAL

Ce séminaire traitera des points suivants :

- *comportement sous fort champ accélérateur des sections expérimentales LIL/SERA et CGR-GE*
- *champ maximum et champ opérationnel*
- *relation entre la longueur de l'impulsion RF et la tenue au champ*
- *caractéristiques du courant d'obscurité et les problèmes qui s'y rattachent.*

Wednesday 23 May

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

The role of chiral Lagrangians in strongly interacting W_L s and Z_L s at the TeV energy scale by M.J. HERRERO / CERN

A simple phenomenological model for the scattering amplitudes of strongly interacting longitudinal gauge bosons at the TeV energy scale is applied. The model is based on the use of the well-known techniques from chiral effective Lagrangians and chiral perturbation theory, supplemented by a unitarization method for the scattering amplitudes. The generality of the approach allows one to deal with various physical situations in the unknown symmetry breaking sector of the Standard Model. In particular we mimic the two typical scenarios for the symmetry breaking sector : one of Higgs-type and the other of QCD-type. Two different unitarization methods have been implemented for comparison : the Padé

approximant method and the K-matrix method. A systematic study of the most prominent strongly interacting signals at SSC and LHC is presented.

Wednesday 23 May

CN SEMINAR

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

The vectorization of Monte Carlo codes : basic instruments and philosophy

by F. ANTONELLI / IBM, SIUR division
(System Informatics for Universities and Research), Pisa, Italy

F. Antonelli has joined the IBM supercomputing team at CERN for 18 months, and will give this talk just before leaving CERN at the end of the May.

Lundi 28 mai

SEMINAIRE AT-SU

à 11.00 h – Amphithéâtre LEP
bât. 30, 7e étage

Géodésie, métrologie et topométrie ou l'art de mesurer des objets démesurés

par M. MAYOUD / CERN-AT/SU

Le géomètre moderne n'a plus grand chose de commun avec 'l'arpenteur' du proche passé. Plus encore, grâce aux techniques satellitaires, les géodésiens ou cartographes d'aujourd'hui ont pris beaucoup de hauteur par rapport au travail pénible des ingénieurs-géographes d'antan! Dans ces métiers, l'évolution technologique a été rapide et performante, répondant à des besoins variés, apportant des solutions méconnues, qui suscitent à leur tour des demandes nouvelles. Du génie civil à la robotique, en passant par la physique des particules, l'industrie, l'ingénierie et la recherche ont de plus en plus recours aux techniques de la métrologie géodésique. C'est en effet le seul moyen de mesurer précisément des objets de grande dimension, allant de la grosse pièce industrielle... à la terre elle-même.

Monday 28 May

SPECIAL COLLOQUIUM

at 14.30 hrs – Auditorium*

The European Southern Observatory its role in European astronomy : the very large telescope project

by H. VAN DER LAAN / Director-General
of ESO

This talk is prompted by the ESO exhibit in CERN's Microcosm. It will broadly sketch the two topics in the title. ESO is based on a convention, modelled after that of CERN, approved in 1962 and ratified in 1964. In its first 25 years ESO has evolved to assume

a leading role in European astronomy, functioning as a research-service organization, a meeting place for exchange and collaborations as well as a centre for astronomy-technology, research and development. All three functions will be illustrated. In December 1987 the ESO council approved the proposal to build the 16-m equivalent very large telescope (VLT). This project, whose size is indicated by its aperture, its capital budget of around MDM 500 and the in-house plus community effort of around 1000 man-years, is the most ambitious ever in ground-based astronomy. The project's essential features will be outlined in terms of science goals, observing modes, technology features and community involvement.

Monday 28 May

EP SEMINAR

at 16.30 hrs – Auditorium

Direct photon production in $p\bar{p}$ and pp reactions in experiment UA6

by Giuseppe BALLOCCHI / Fellow,
CERN-PPE

The production of direct photons in $p\bar{p}$ and pp reactions has been measured by the UA6 collaboration at $\sqrt{s} = 24.3$ GeV, in the transverse momentum range 4-6 GeV/c. The difference between the direct photons cross-sections in $p\bar{p}$ and pp reactions is compared for the first time with QCD calculations. The determination of the gluon distribution and the QCD constant Λ are discussed. Future prospects for direct photons studies from the full analysis of the UA6 data and from other direct photon experiments are presented.

Tuesday 29 May

SPS EXPERIMENTS COMMITTEE

Open session

at 09.00 hrs – Auditorium

1. Status report on WA80 (Study of relativistic nucleus-nucleus collisions; H.H. Gutbrod).
2. Proposal for a light universal detector for the study of correlations between photons and charged particles (CERN - Geneva Univ. - GSI Darmstadt - Jammu - Kurchatov Inst. Moscow - KVI Groningen - Lund - Münster - Oak Ridge National Lab. - Punjab Univ. of Rajasthan - Univ. of Tennessee - VECC Calcutta collaboration; SPSC 90-14/P 252; H.H. Gutbrod).
3. Status report on NA36 (Production of strange baryons and antibaryons in relativistic ion collisions; C.R. Gruhn).

Closed session

Tuesday 29 May

at 14.00 hrs – bldg 32, room 1 A24

to be continued on Wednesday 30 May

at 09.00 hrs, 6th floor Conference Room,
Administration building.

Tuesday 29 May

PRIAM PRESENTATION

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

Eltec Elektronik GmbH

Language : English

Organizer : C. Parkman / 3963 / pmn@cernvm

Mercredi 30 mai

PRESENTATION TECHNIQUE

de 09.30 à 11.30 h – bât. 865, 1-D17

Présentation de l'oscilloscope IN 7000, conçu et réalisé par Intertechnique (F)

Langue : français

Renseignements : M. Diraison / FI / 4585

TRAINING AND EDUCATION ENSEIGNEMENT

ACADEMIC TRAINING

Tél. 2844-3364

30 & 31 May, 6 & 7 June

11.00 to 12.00 hrs – Auditorium

Microelectronics for particle physicists

by E. HEIJNE & A. MARCHIORO / ECP
Division

Measurement systems as complex as detectors in LHC will depend heavily on microelectronics technology. This technology is applied in the construction of high resolution detectors, in the processing of signals from conventional particle detectors, in the extraction of information and the collection, filtering and analysis of the vast amount of raw data. These four lectures will introduce VLSI technology from the basic device properties up to system level design considerations. The basic goal will be to inform the experimental physicist about the impressive design possibilities that microelectronics will offer in the 90s.

The first two lectures by E. Heijne will give a bottom-up approach to the basic device phenomena and characteristics, concentrating on applications of VLSI technology in the environment of particle physics experiments.

The second two lectures by A. Marchioro will introduce the top-down design methodology for complex systems, covering the range from high level system specifications to automatic implementation of circuits.

Wednesday 30 May*

EP SEMINAR

at 14.30 hrs – Auditorium

Charm and Beauty at Fermilab

by Jeff SPALDING / Fermilab

* Please note unusual day & time!

Thursday 31 May

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium

The first observation of the decay $K_L \rightarrow \pi^0 \gamma \gamma$ and its implications on direct CP violation searches

by K. KLEINKNECHT / Universität Mainz &
CERN



ENSEIGNEMENT TECHNIQUE TECHNICAL TRAINING

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☎ 4460

ELECTRONICS SEMINAR

June 26, 27, 28 & 29, 1990

Technical Training Auditorium

STRUCTURED ANALOG DESIGN

by Prof. Dr. R.D. Middlebrook
CALTECH - USA

This seminar is aimed at design engineers who would like to increase their skill in designing specifications and to learn techniques that will reduce design time and increase design quality. This is achieved by using design oriented analysis and measurement techniques which form a structured way of solving analog design problems and permit to fully utilize the power of CAD tools and network analysers.

Low entropy expressions, inverted poles and zeros, null double injection, the feedback theorem, the extra element theorem and the output and input impedance