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Week Monday 8 April

no 15/91

Semaine du lundi 8 avril

SEMINARS SEMINAIRES

Monday 8 April*

CN SEMINAR

at 10.30 hrs* – CN Auditorium
bldg 31/3-005

Posix standards

by Andrea VINCENZI / DEC

- *What is POSIX : Origins – Scope – Status*
- *Detailed description of some Posix standards*
 - 1003.1 – system interface
 - 1003.2 – shell and utilities
 - 1003.4 – real time extensions
 - Other 1003.x – brief description
- *Why use Posix*
 - Importing applications
 - Developing portable applications

Andrea Vincenzi is the project leader for VMS/Posix.

* Please note unusual day & time

Monday 8 April

CN TECHNICAL PRESENTATION

at 14.00 hrs – CN Auditorium
bldg 31/3-005

VMS/Posix technical description

by Andrea VINCENZI / DEC

- *General architecture*
 - Integration of two systems
 - Differences between VMS and UNIX
- *The file system*
 - Structure of the Posix file system
 - Basic operations
 - VIP & UCX
- *Real time extensions : semaphores, process memory locking, shared memory, priority scheduling, events, timers, IPC, asynchronous I/O, real-time files*

Andrea Vincenzi is the project leader for VMS/Posix. He has been with Digital for three years; before joining Digital he was an independent consultant in the area of Unix internals and open systems applications.

Language : English

Organizer : A. Silverman /CN

Tuesday 9 April

CN TECHNICAL PRESENTATION

at 14.00 hrs – CN Auditorium
bldg 31/3-005

DAZIX USER meeting

Daisy/Cadnetix Corporation (DAZIX), the supplier of one of the digital electronic CAE systems supported at CERN, was acquired by INTERGRAPH on 24 December 1990. The new company, which forms an independent operating unit under the name 'DAZIX, an INTERGRAPH Company', will continue the development and the support of their CAE tools. During this meeting, DAZIX will present their tools and their plans for the future.

14.00 Corporate overview (video, 10 min.).

The tools of today and their integration.

Simultaneous Engineering Environment (SEE). (The framework that works).

Product development : an overview on chip-design, PLDs and PCB-layout tools.

15.00 Discussion.

15.30 DEMO : *Simultaneous Engineering Environment (SEE).*

Language : English

Organizer : Pierre Baehler /CN

Tuesday 9 April

PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Precision measurements of electroweak parameters in Z decays with the ALEPH detector
by W. D. SCHLATTER / CERN

Precise measurements of electroweak parameters obtained from Z lineshape and Asymmetries (of leptons, heavy quarks, tau polarization and quark charge) are reported and discussed in the framework of the Standard Model.

* Tea & coffee will be served at 16.00 hrs.

Wednesday 10 April

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Jet physics at proton colliders

by D. SOPER / CERN

The cross section to make jets at in proton-antiproton collisions provides a window to the physics at distance scales down to 1/ (400 GeV). In addition, the angular distribution of the jets gives a probe of the quark and gluon interactions of QCD and of any new interactions beyond those of the standard model. Finally, the distribution of energy within a jet can be used as a probe of the internal structure of QCD jets.

Friday 12 April

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Strong CP-violation in an effective chiral Lagrangian approach

by Eduardo DE RAFAEL / CERN

Possible long-distance effects like $\eta \rightarrow \pi\pi$ and the electric dipole moment of the neutron, which may originate in the strong CP-non-conserving sector of QCD, will be re-examined in the light of an effective chiral Lagrangian approach. Recent literature on the subject will also be examined.

Monday 15 April

PPE SEMINAR

at 16.30 hrs – Auditorium

On the precise determination of the lineshape parameters at LEP

by M. MARTINEZ / Barcelona University

Lineshape measurements are the most accurate ones performed at LEP so far. From them, precise determination of Z parameters is possible. The smallness of the statistical errors attainable after the next year's runs obliges to consider in detail all the systematic uncertainties which could come from the experimental measurements, the machine parameter uncertainties, the fitting procedure and the theoretical approach. The actual method used to extract the Z parameters from the lineshapes will be described in detail and all the relevant uncertainties and possible biases coming from the sources mentioned above will be discussed. Finally, physics implications of the foreseen accuracies in the forthcoming measurements at LEP will be analysed.

Tuesday 16 April

TECHNICAL PRESENTATION

09.00 – 14.00 hrs & 14.00–16.30 hrs
bldg 17/1-007

PI, Physik Instrumente (D), represented by Polyscience AG (CH), is a leading manufacturer in micropositioning systems like DC- or stepping motor driven linear or rotary stages. Some of their major product lines are piezoelectric systems for outstanding positioning accuracy in static and dynamic applications.

1. Motorized Micropositioning : linear posit. stages up to 300 mm travel with position repeatability of better than 1 micro -rotary posit. stages with extremely high resolution -DC- and stepping motor controllers -DC-motor controllers as a PC-compatible plug-in board -application software for positioning control.
2. Piezoelectric Micropositioning : piezoelectric translators in high- and low-voltage design -PZTs with integrated positioning sensors -Position control electronics for strain gages and LVDTs -control interfaces for static and dynamic PZT operations.
3. Fast Piezoelectric Tilting Mirror Platforms for beam steering and image correction and stabilization.

Languages : English, French & German

Information : M. Diraison / FI / 4585

Mercredi 17 avril

PRESENTATION TECHNIQUE

de 09.00 à 17.30 h – Site de Préveessin
parking bât. 867

Facom (F), spécialiste de l'outillage à main professionnel pour l'industrie et le garage, présente l'ensemble de sa gamme de produits.

Langue : français.

Renseignements : M. Diraison / FI / 4585

Wednesday 17 April

COMPUTING SEMINAR

at 16.00 hrs – CN Auditorium
bldg. 31/3-005

Report on recent HEP conference in Japan

by H. RENSHALL / CERN-CN &

J. SHIERS / CERN-CN

Organizer : N. Cremel /CN

Thursday 2 May & Friday 3 May
SYMPOSIUM ON QUANTUM PHYSICS
IN MEMORY OF JOHN STEWART BELL
All sessions will be held in the Auditorium

Thursday 2 May

11.00 – 11.15 *Welcome*
11.15 – 12.30 *Experimental Tests of Bell Inequalities*
A. ASPECT
12.30 – 14.00 *Lunch*
14.00 – 15.15 *Neutron Interferometry tests of Quantum Mechanics*
H. RAUCH
15.15 – 16.30 *Macroscopic Quantum Effects*
A.J. LEGGETT
16.30 – 17.00 *Coffee Break (Salle des Pas Perdus)*
17.00 – 18.15 *John Bell and the Moral Aspects of Quantum Mechanics*
K. GOTTFRIED
18.15 – 18.30 *Videos*
18.30 – 19.30 *Cocktails (Salle des Pas Perdus)*

Friday 3 May

09.30 – 10.45 *New Aspects of Bell's Theorem*
A. SHIMONY
10.45 – 11.15 *Coffee Break (Salle des Pas Perdus)*
11.15 – 12.30 *Beyond Conventional Quantum Mechanics*
G. GHIRARDI
12.30 – 14.00 *Lunch*
14.00 – 15.15 *Quantum Effects in Accelerator Physics*
J. LEINAAS
15.15 – 16.30 *The Breaking of Classical Symmetries by Quantum Mechanics*
R. JACKIW

If you are interested in attending the Symposium,
please send a note to Jeanne Rostant in the TH Division Secretariat (ROSTANT@CERNVM).

TRAINING AND EDUCATION ENSEIGNEMENT

ACADEMIC TRAINING

Tel. 2844 – 3127 p.m.

8, 9 & 10 April

11.00 to 12.00hrs – Auditorium
Distributed Computing
by R. VAN RENESSE / Free University,
Amsterdam

15, 16, 17 & 18 April

11.00 to 12.00 hrs – Auditorium
Polarized e-beams in LEP
Lecture on 15.4 : physics applications of polarized beams in LEP
by A. BLONDEL / CERN-SL

The lecture will describe the usefulness of transverse and longitudinal polarization at the Z pole. Accurate measurements

of the resonance parameters and couplings can be obtained, probing the electro-weak theory.

Lecture on 16 & 17.4 : Beam polarization for pedestrians
by J. BUON / LAL, Orsay

The concept of polarization for spin 1/2 particle beams is first introduced. The general properties of spin precession in the magnetic fields of accelerators are studied with emphasis on resonant depolarization phenomena. The mechanisms of polarization and depolarization are discussed in details for electron beams in storage rings as LEP. Schemes to improve polarization equilibrium in these rings and to obtain longitudinal polarization are indicated.

Lecture on 18.4 : The measurements of transverse polarization in LEP

by M. PLACIDI / CERN-SL

A laser polarimeter has been installed in LEP to measure the transverse polarization of the electron beam. We recall the principles of operation of the polarimeter and describe its commissioning procedure. Account is given of the performance of the laser, the production and the control of the circular polarization of the photons and of the performance of the detector. Experimental results on first attempts to detect transverse polarization in LEP are presented and discussed.