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Relations avec les Pays-hôtes
Tél. 5152

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Relations with the Host States

SEMINARS SEMINAIRES

Tuesday 17 March

DETECTOR SEMINAR

at 11.00 hrs – ECP Conference Room
bldg 13/2-005

Gaseous detectors in medical radiography

by Lev SHEKHTMAN / Budker Institute of
Nuclear Physics, Novosibirsk

A digital radiographic device for medical diagnostics is described. The distribution of X-ray intensity in horizontal direction is measured by one-coordinate proportional chamber with 1.2 mm wire spacing and special fast parallel readout providing 0.6 mm spatial resolution. Mechanical scanning is performed in another direction. To avoid parallax in the chamber, anode wires are not parallel, but 'looking at the source of X-rays'. The MWPC works in counting mode with quantum efficiency of ~30% (50keV) and rate capability of 600 kHz/channel. This approach permits to obtain images with very low background, wide dynamic range and low doses. Several experimental models of this system are in use now in hospitals in Moscow and Novosibirsk. New results with gas microstrip detectors which permit to obtain spatial resolution of ~200 micron and increase rate capability will also be shown.

Tuesday 17 March

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Recent results from CESR

by Karl BERKELMAN / Cornell University and
CERN

The Cornell Electron Storage Ring (CESR) has recently been upgraded in luminosity, and the CLEO detector has been rebuilt with greatly improved resolution for photons and neutral pions. I will present several samples of recent results on decays of τ , D^ , D and D_s that demonstrate the new CLEO capabilities. If time permits, there will also be a brief resume of the CESR B Factory upgrade proposal and its present status.*

* Tea & coffee will be served at 16.00 hrs

Wednesday 18 March

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Topology from matrix models

by Claude ITZYKSON / Service de Physique
Theorique, Saclay

Wednesday 18 March

COMPUTING SEMINAR

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

Use of the ADAMO System in the ZEUS Experiment

by Markus Tobias HAAS / DESY, Hamburg, Germany

The ADAMO (Aleph DATA MOdel) system is an implementation of the entity-relationship data model built to suit the typical requirements of a large High Energy Physics experiment. ADAMO provides tabular access to data, relationships between them, and a high level language describing the data structure. ADAMO is used within the ZEUS experiment at HERA for the detector data, calibrations, and geometry descriptions both online and offline. The ADAMO data structures are generated on the fly during data taking and are used through the entire chain of analysis programs; the data structures of the ZEUS Monte Carlo, the reconstruction program, different event displays and other auxiliary programs are all based upon ADAMO. The experience with ADAMO has been very favorable. The complicated data structures of a large High Energy Physics experiment can be administered with ease. Adamo allows rapid modifications. It provides for a very readable data description in the form of a dictionary which is always up to date. This dictionary is available on all online and offline computers. Browsing tools are also available to provide instant access to the data.

Thursday 19 March

PRESENTATION

at 11.00 hrs – CN Auditorium
bldg 31/3-005

High speed gate arrays and their application

by Richard W. SPEHN

AMCC uses bicmos and bipolar technology for making very fast circuits as is shown in the HIPPI chip set, which has won a 1990 design award. A brief overview will be given of the technology used and applied in an array family, the macro libraries, and the associated verification tools capable of implementing 1.2 GHz clock rates. Some application examples of circuits for HIPPI, SONET and Fiber Channel will be presented.

Friday 20 March

PRESENTATION

at 09.30 hrs – CN Auditorium
bldg 31/3-005

Parsytec GC and the Parix Programming Environment

by F. LANGHAMMER & D. JEFFRY

The Parsytec CG is a T9000 Transputer based parallel computer comprising of 64 to 16,384 processors and offering performance

in the range of 1 to 400 GFlops. The GC machine is hosted by a Unix workstation front-end and has the capability of local i/o to disk and tapes. A machine of this performance could be used in either an on-line data triggering or in an off-line data analysis role. The facility of local disk and tape units allows fast throughput of experimental data. Parix is a new open software environment developed by Parsytec to exploit the architectural features of the GC machine and Parsytec's T800 machines. Parix offers a cross-development environment using standard FORTRAN and Optimising compilers, and includes subroutine libraries for communication, calculation and display (BLAS, X11R4). System management tools are included in Parix user administration and system integration in computer centre environments. A T800 version of Parix will be demonstrated on a 256 processor machine.

The presentation will include :

1. Overview of Parsytec GC and details of architectural features.
2. Overview of Parix, including software elements for parallel processing.
3. System administration and running of a GC.
4. How to write programs with PARix
5. How could a GC machine be used at CERN.
6. Demonstration of PARix running on T800s.

Information : Ian Willers /ECP, Brian Martin/ECP

Friday 20 March

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Chaos in non-Abelian lattice gauge theory

by B. MÜLLER / Duke University, USA

The Yang-Mills field equations form a non-linear, non-integrable system of classical equations. I will present numerical evidence that the real-time Hamiltonian dynamics of SU(2)-gauge theory on a spatial lattice exhibits deterministic chaos in the semiclassical limit. The maximal Lyapunov exponent of the gauge field is determined as a function of energy density, and its scaling behaviour in the continuum limit is studied. I will discuss possible consequences for the problems of thermalization and colour confinement.

Monday 23 March

DETECTOR SEMINAR

at 11.00 hrs – TH Conference Room

Light weight structures for particle detectors

by Miroslav HAGER / Austrian Aerospace Company, Vienna, Austria
(Österreichische Raumfahrt- und Systemtechnik GmbH)

The baseline for design and analysis as well as the selection of the most suitable materials applied to light weight structures for particles detector systems in LHC experiments will be

presented, elaborated and discussed. Methods of design analysis with consideration of assembly and testing will be additionally a subject matter. Examples of light weight structures designed and manufactured during the long experience with space structures and mechanisms will be displayed.

Monday 23 March

PPE SEMINAR

at 16.30 hrs – Auditorium

Recent B physics results From CLEO-II

by Karen LINGEL / University of Colorado

The CLEO collaboration has analyzed 0.5 fb^{-1} of $Y(4S)$ data with the CLEO-II detector, corresponding to about 1 million produced B mesons. This large data sample, as well as the Cesium Iodide electro-magnetic calorimeter, make CLEO sensitive to charmless B decay branching ratios at the level of the theoretical predictions (or below). We present results on searches for exclusive rare B decay modes, specifically $b \rightarrow u$ transitions, $b \rightarrow s$ hadronic penguins, and $b \rightarrow s\gamma$ electro-magnetic penguins, as well as recent results on other B physics, such as B^0 mixing and V-A dominance in $B \rightarrow D^ l \nu$ decays.*

Tuesday 24 March

TECHNICAL PRESENTATION

09.30–12.00 hrs – Council Chamber

RAMS (Reliability, Availability, Maintainability and Safety), Design Assurance Technologies

by ORS, Österreichische Raumfahrt- und Systemtechnik GmbH (A)

Language : English

Information : M. Diraison / FI / 4585

Tuesday 24 March

PRESENTATION

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

Landmarks in VMEbus systems by Spectralab, Eltec and Sysgo

by Bruno R. Fricker, Carsten Emde & Robert Kaiser

Information : Douglas Kemp / CN, tel 5024

Tuesday 24 March

CERN COLLOQUIUM

at 16.30 hrs – Auditorium

The domestication of nuclear spins by chemists and biologists

by Richard R. ERNST / ETH, Zurich

Wednesday 25 March

COMPUTING SEMINAR

10.00–12.00 hrs* – CN Auditorium
bldg 31/ 3-005

1. **High-energy computing by using network at KEK**
by Shingo ICHII / Networks systems programmer in KEK

2. **Data acquisition and analysis in Unix environment at KEK**

by Hiro FUJII / Online group leader in KEK

* Please note unusual time

Thursday 26 March

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium

Recent results from OPAL

by David CHARLTON / CERN-PPE

Friday 27 March

PRESENTATION

at 09.30 hrs – CN Auditorium
bldg 31/3-005

Latest VME and VXI systems and interconnections

by Bernd HUBER / Product Marketing Manager, AUGAT & Stefan KELLER / Sales and Marketing Manager, DEWALD

Friday 27 March

TIS SEMINAR

at 10.30 hrs – PE Auditorium
(Techn. Training), bldg 593, room 11

CFC's and their replacements

by Tom CHRISTIE / Refrigeration Consultant

INFORMATION DU LAPP

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Vendredi 20 mars

SEMINAIRE LAPP

à 10.45 h – Amphithéâtre LAPP

Z', W' and Susy particles searches at CDF

par K. MAESHIMA / Fermilab (Chicago)

Information : Sylvie LEES-ROSIER, LAPP / ext. 328 / SROSIER@FRCPN11