

SEMINARS SEMINAIRES

Wednesday 10 April

COMPUTING SEMINAR

at 16.00hrs – CN Auditorium, bldg 31/3-004-5

Intelligent Communication/A new system solution for High Performance Computing and Real Time Processing

A. GUNZINGER / ETH Zurich and Supercomputing Systems AG

Future High Performance Computing will be based mainly on parallel processing. The main limiting factor in parallel processing is communication administration. With Intelligent Communication the processors are completely freed from managing the administrative communication tasks which are instead all managed by the dedicated hardware. Applications of Intelligent Communication are desktop high performance computers and real time parallel processing. In this talk, a UNIX based 1.6 GFlops deskside parallel computer as well as real time parallel processors which use Intelligent Communication are presented.

Organiser : G.Folger / CN

Thursday 11 April

SL SEMINAR

at 16:00 – SL Auditorium, Preessin, bldg. 864

Lead Ions in the SPS

by Gianluigi ARDUINI and Thomas BOHL / CERN

Since 1994 the SPS accelerates fully stripped lead ions up to the equivalent proton momentum of 400 GeV/c. The lead ion accelerator complex will be described with particular emphasis on the SPS. The main differences with respect to proton acceleration will be presented.

The first part of the talk will discuss the basic parameters and will be mainly dedicated to the transverse behaviour of the beam while the second part will focus on radiofrequency acceleration.

This presentation is intended as an overview and aimed at non-specialists.

** Tea and coffee will be served at 15:30 hrs in front of the auditorium*

Thursday 11 April

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs - Auditorium*

τ Physics at LEP and Beyond

by Jasper KIRKBY / CERN

Over the last few years the τ lepton has become an important laboratory in its own right for precision tests of the standard model. We review the present experimental understanding of the τ , especially concerning the contributions of LEP. Although no clear signs of new physics have yet been seen in the τ lepton, it is possible that they may appear in the next round of experiments. We comment on the possible future interesting directions in τ physics and on the experimental prospects.

* Tea & coffee will be served at 16.00 hrs.

Friday 12 April

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Moment analysis of multiplicity distributions in QCD and experiment

by Igor DREMIN / Lebedev Institute, Moscow

The solution of the QCD equation for the generating function is found both for the fixed and for the running coupling constant. It predicts the peculiar behaviour of moments of parton multiplicity distribution with some specific oscillations. As a by-product, the ratio of multiplicities in gluon and quark jets is obtained. The method of moment analysis is applied to experimental data on ee, hh, hA and AA reactions. The oscillations of moments have been found in all the cases. The zeros of the truncated generating function are considered for all the data. They are located near the unit circle and recall zeros of the grand partition function discussed by Lee and Yang in connection with phase transitions in statistical mechanics.

Tuesday 16 April

TECHNICAL PRESENTATION

at 10.00 hrs – CN Auditorium, bldg 31/3-004-5

High Speed Bus for CERN Data Applications

by F.H. PEDERSEN / CRISA, MADRID.

Organiser : S. Cannon / CN / 5036

Tuesday 16 April

TECHNICAL PRESENTATION

at 14.00 hrs – CN Auditorium, bldg 31/3-004-5

Multi-Processing DSP (Digital Signal Processor) for VME and PCI

by B. LEES / Loughborough Sound Images Ltd.

Please note the unusual time.

Organiser : S. Cannon / CN / 5036

Thursday 18 April

PRESENTATION

from 9.30 hrs to 16.30 hrs – Administration Building (Bldg. 60, 1st floor)

Real-Time Computer Show Europe at CERN

Twenty-nine companies will present real-time-computing/embedded-system products at this exhibition at CERN. The event is organized by Active Exhibitions Europe.

The following companies announced their participation:

ADAS (F)	IRTS (F)
BVM (UK)	Lecroy (CH)
Castor (F)	Litronic (CH)
Centralp (F)	Lynx Real-Time Systems (F)
Cetia (F)	Microware (F)
Datacomp (CH)	MSP Friedli (CH)
Dr. B. Struck (D)	OmniRay (CH)
Ecrin Automatismes (F)	Pentland Systems (UK)

Elma Electronic (CH)	Pro-Log (F)
Eltec International (F)	Tecsi (F)
Eonic Systems (B)	Tektronix (UK)
Gespac (CH)	VERO Electronics (D)
Harris Computer Systems (F)	Vsystems (F)
Hytec (UK)	Windriver Systems (UK)
INCAA (NL)	

Information: L. Pregernig / CN,
E-mail (Ludwig.Pregernig@cern.ch) or 2666

Thursday 18 April

TECHNICAL PRESENTATION

at 10.00 hrs – AT Auditorium, bldg 30/7-018

Kapton Polyimide Films – Recent Developments

by Harry GUMM and Günter FORSTER / Du Pont de Nemours

Thursday 18 April

LHC TECHNICAL SEMINAR

at 16.00 – AT Auditorium, Bldg. 30/7th fl.

Simulations of thermal and mechanical effects induced by particle cascades in the LHC machine components

by J.M. ZAZULA/CERN

Friday 19 April

TECHNICAL PRESENTATION

at 09.00 hrs – CN Auditorium, bldg 31/3-004-5

SGI CERN TOUR.

by Gerard DALANG, Marc CHELI, Olivier HARTMANN, Paride ZIZARI, Jean-Louis THIMBAUL / SGI.

Organiser : S. Cannon / CN / 5036

POUR INFORMATION / FOR INFORMATION

LAPP

Laboratoire d'Annecy de physique des particules

Chemin Bellevue

F-74000 ANNECY-LE-VIEUX

VENDREDI 12 AVRIL

SÉMINAIRE LAPP

à 14h.04 hrs – AMPHI du LAPP

"Recherche de la désintégration $\rightarrow D^{*+} D^{*-} X$ dans l'expérience DELPHI au LEP du CERN"

par M-L. ANDRIEUX / ISN Grenoble

EDUCATION SERVICES EDUCATIFS

ENSEIGNEMENT GÉNÉRAL

Tél. 5811

Jeudi 18 avril

à 13.00 h – Amphithéâtre

Science pour tous

par Rafel CARRERAS

(Veuillez prendre note que "Science pour tous" n'aura pas lieu les jeudis 4 et 11 avril.)



ENSEIGNEMENT TECHNIQUE TECHNICAL TRAINING

Monique Duval ☎ 44.60

monique_duval@macmail

Information sur les cours, dates et places disponibles sur WWW :
Information about the courses, dates and places available on WWW :

<http://www.cern.ch/Training/>

Technical Seminar

April 25, 1996 at 14.30

Room 13, Building 593

Magnetostrictive Force Actuators for High Precision Positioning

V.I. Rakhovsky (VMP LTD, Moskow, Russia)

Magnetostrictive actuators for positioning with subnanometer resolution (10^{-2} nm) in ranges up to 1m have been developed and used. These actuators with 10 nm step can also be used as force actuators to deliver efforts up to 10^4 N. Precise displacements are set by active elements made of giant magnetostrictive alloys.

The actuators have been designed for precise manipulators and object tables, nanotechnology devices, adaptive optics, for the manufacturing of VLSI, Fresnel optics, diffraction gratings, etc. Low-power excitation of active elements is performed due to a unique patented method allowing for a drift of less than 10^{-3} nm/s without any temperature stabilization. The actuator consumes energy only during displacements.

It can be either operated manually without any external energy source, or by computer control. With manual control one can achieve steps of 3 nm, and with a reduction gear 15.10⁻³nm. Under computer control these values are 10^{-2} nm resp. 4 10⁻⁵ nm. The dimensions of these actuators are 50 x 31 x 27 mm and 120 x 190 x 38 mm.

The author will give a demonstration of the micropositioner under various conditions.

This seminar is free of charge and no registration is necessary.