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|---------------------------------|----------------------|-----------------------------------|
| - Calculatrice SHARP EL 231 S | no 7A201 | - SHARP EL 231 S calculator |
| - Support téléphone TELPORTE | | - TELPORTE telephone support |
| - Pistolet air chaud RAYCHEM | CV 1509 | - RAYCHEM hot-air gun |
| - Calculatrice PACKARD | no 2509A42488 | - PACKARD calculator |
| - 3 fers à souder WELLER VECP20 | no 0385-0786 et 1186 | - 3 WELLER VECP20 soldering irons |

SEMINARS SEMINAIRES

Monday 26 November

CAS ACCELERATOR SEMINAR THE SIXTH LECTURE IN THE JOHN ADAMS' MEMORIAL LECTURE SERIES

at 14.30 hrs - Council Chamber*

The LEP collider, from design to approval and commissioning

by Stephen MYERS / CERN

A description is given of the design, approval, construction and commissioning of the LEP collider. The contribution of John Adams is highlighted both during his years as CERN's Director-General and later as an active member of the LEP Machine Advisory Committee. The first injection into LEP took place in July 1989 with first collisions for physics about a month later. After one year of operation, the LEP luminosity has reached more than half of the design value and more than 900 000 Z^0 particles have been generated, detected and analysed. The major factors related to each significant improvement in performance are described. The present day limitations to performance are analysed, and the foreseen improvements aimed at raising the performance are discussed. In addition, the time schedule and performance estimates for the planned upgrade in LEP energy to allow study of W pair production are reported.

* Tea & coffee will be served after the lecture (~ 16.00 hrs)
in the Salle des Pas perdus

Monday 26 November

PPE SEMINAR

at 16.30 hrs - Auditorium

A measurement of the polarization of the tau lepton in $Z \rightarrow \tau^+ \tau^-$ decays from ALEPH

by Makoto TAKASHIMA / CERN-PPE

Measurements of the longitudinal polarization of tau leptons produced in Z^0 decays have been performed with the ALEPH detector. The polarization has been obtained through the tau decay modes: $\pi \nu$, $\rho \nu$, $A1 \nu$, $\mu \nu \nu$, and electron $\nu \nu$. The mean value of these modes is $P = -0.157 \pm 0.055$. This corresponds to a ratio of the neutral vector and axial vector coupling constants of $g_V^T/g_A^T = 0.079 \pm 0.028$ and a value of the electroweak mixing parameter $\sin^2 \theta_w = 0.231 \pm 0.007$.

Tuesday 27 November

TECHNICAL PRESENTATION

14.00 to 16.00 hrs - bldg 17, 1-007

Scanditronix AB (S), specializing in cyclotrons, microtrons, spectrometers, beam handling equipment, magnets and coils, magnetometers, etc., will demonstrate their latest type **POSTPONED** 'ision magnetometer, NMR 851 PC. From a Personal Computer the NMR **POSTPONED**, an automated multi probe system for **POSTPONED** and closed loop control of magnetic fields. Its operation is based upon nuclear magnetic resonance. It further features fast automatic search and tracking of resonance signal, closed loop field regulation and expandable modular design. All the relevant system parameters are continuously presented on the PC's monitor. All of the operations are menu-driven. The measuring range for a single standard probe is 0.1-2.3 Tesla. Using this probe the unit finds and locks to the magnetic field in less than 10 seconds.

Language : English

Information : M. Diraison / FI / 4585

Tuesday 27 November

CERN COLLOQUIUM

at 16.30 hrs - Auditorium*

Dark mass moments

by Alvaro DE RUJULA / CERN-TH

The substance of the invisible halo of the Milky Way is a key astronomical puzzle, recently stirred by new

data on obscuration by dust in spiral galaxies. Heavier putative constituents, Massive Halo Objects in the unexplored range of 10^{-1} to 10^{-6} solar masses, should soon be found or excluded by an ongoing micro-lensing campaign. We may be drawing nigher to the day when the search for elementary-particle dark-mass candidates will be hard to justify, or absolutely mandatory. We ought to be ready.

* Tea & coffee will be served at 16.00 hrs.

Wednesday 28 November

TECHNICAL PRESENTATION

09.00 to 16.30 hrs – bldg 17, 1-007

Metrolab Instruments SA (CH), manufacturer of high precision magnetic field measuring and control instrumentation, will present and demonstrate : PDI 5205 Precision Digital Integrator/Fluxmeter; PT 2025 NMR nuclear magnetic resonance magnetometer; RG 2040 NMR closed-loop field regulation. Between the main applications in low and high energy physics research they would like to emphasize : accurate measurement of particle beam bending magnets; closed loop control of analysing magnets; Hall effect probes and more generally, magnetic sensors calibration; harmonic analysis of multipole magnets.

Languages : English, French, Italian
Information : M. Diraison / FI / 4585

Wednesday 28 November

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Hagedorn phase transition for the closed string as the anyonic superconducting phase transition in the open topological membrane

by I.I. KOGAN / CERN

The high-temperature or small compactification scales phase of closed string is studied in the $2+1$ terms of the open topological membrane theory. The main features of this phase is the breaking of the world-sheet conformal symmetry due to the Berezinsky-Kosterlitz-Thouless (BKT) phase transition. From the $2+1$ point of view this breaking corresponds to the spontaneous breaking of the gauge symmetry of the topologically massive gauge theory (TMGT), which leads to the disappearing of the string's degree of freedom from the membrane boundary (string world-sheet). This spontaneous breaking of the gauge symmetry is nothing but the superconducting phase transition inside the membrane. The possible mechanism of this transition is considered and the connection with anyonic superconductivity is discussed, as well as the description of the world-sheet vortices in $2+1$ terms as the charged vortices (flux tubes) in the Abelian TMGT+Higgs model.

Thursday 29 & Friday 30 November

CN TECHNICAL PRESENTATION

at 09.00 hrs – AT Auditorium
bldg 30, 7th floor

Daisy/Cadnetix Presentation

Rapidly changing technology in electronics makes adequate tools essential. Dazix is the supplier of one of the CERN supported CAE tools which is widely used in the research divisions for complex designs. To show the evolution in CAE design, Dazix/Cadnetix will present their latest products for PLDs, ASICs, VHDL/Logic Synthesis and the new layout package – Boardmaster.

Thursday 29 November

- 09.00 Dazix at CERN
- 09.20 Presentation of the agenda and overview
- 09.40 Dazix today
- 10.00 PLD-Master presentation and demonstration
- 12.00 Lunch break
- 13.30 ASIC presentation
- 14.15 VHDL/Logic Synthesis presentation and demonstration
- 16.30 General discussion and/or demos

Friday 30 November

- 09.00 Boardmaster presentation and demonstration
- 11.30 Summary

Language : English

Organiser : A. Thys / CN / 4918 or 2360

Thursday 29 November

PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Status of the Large Hadron Collider (LHC)

by Giorgio BRIANTI / Associate Director for Future Accelerators, CERN

* Tea & coffee will be served at 16.00 hrs.

Friday 30 November

CN TECHNICAL PRESENTATION

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

Modelling and simulation with SABER

by Martin VLACH / Analogy Inc.

SABER is a comprehensive simulator spanning analogue and digital domains, covering mixed technologies, and is capable of simulating systems described by a mixture of models at the primitive, functional, and behavioural levels. It is the first simulator which uses a mixed analogue/digital hardware description language called MAST to formally implement the split between simulation and modelling. MAST allows analogue hardware device modelling by having the necessary constructs to describe conservation laws such as the Kirchhoff

Voltage and Current Laws in electrical systems. SABER is being applied in many areas ranging from power electronics through board level electronic circuit design to analogue and mixed analogue/digital ASIC design. Its technology independent modeling capabilities make it also suitable for more exotic applications, such as the study of quenching effects in superconducting magnets for LHC.

Dr Vlach, the architect of SABER, will present a general overview of the simulation tool.

Language : English

Organizer : R. Zurbuchen / CN / zurdj@cernvm

Friday 30 November

COLLOQUIA ON EMERGING STANDARDS IN APPLICATIONS SOFTWARE

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

The third talk in the series will be on :

X-WINDOWS and OSF Motif

by Julian LEWIS / CERN-PS

X-Windows is a layer of software for developing higher level toolkits which implement screen objects with a chosen look and feel. Motif is one such toolkit which has the backing of IBM, DEC, HP, etc, and which hence stands a good chance of becoming the CERN standard. In this presentation, the X-window client/ server model will be introduced, and the functions provided by this model outlined. Next, the presentation will move on up to the Motif toolkit level, which provides the application programmer with an object oriented programming environment, and the Motif 'Widget' class hierarchy will be looked at. Moving up yet again one level, the Motif resource manager will be introduced, together with the User Interface Language (UIL), which can be used to describe layouts on the screen.

Organizer : G. Moorhead / WGM@CERNVM

Monday 3 December

SPECIAL ECP SEMINAR

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

**Study for a fast cluster finding system for
future HEP experiments**

by Dario CROSSETTO / INFN Torino

A study for a parallel-processing system based on data-driven array processors, digital signal processors and transputers for trigger decision, data acquisition and compaction will be presented. The system is modular and suitable for any calorimeter sizes and types such as the ones proposed in the R&D for the LHC experiments.

Monday 3 December

PPE SEMINAR

at 16.30 hrs – Auditorium

**Search for the Standard Model Higgs Boson
with the L3 detector at LEP**

by Andrey KUNIN / ITEP

A search for the Standard Model Higgs boson has been performed with the L3 detector at LEP. The analysis is based on 5.4 pb^{-1} of data collected in the region of centre-of-mass energies from 88.2 to 94.2 GeV. Results and interpretation of a direct search for the Higgs boson, produced in the reaction $e^+e^- \rightarrow Z^0 H^0$, $Z^0 \rightarrow \nu\nu$, $\mu\mu$ or ee , will be presented.

Tuesday 4 December

TECHNICAL PRESENTATION

09.00 to 17.00 hrs – bldg 6, 2-004

LeCroy Corporation of New York + Geneva presents FASTBUS + CAMAC instruments, the VME instrument range, Microcircuit components and two new digital oscilloscopes.

Langues : English, French, German, Italian
Information : M. Diraison / FI / 4585

Tuesday 4 December

PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium

**Fluctuations and intermittency in particle
collisions**

by R. PESCHANKSKI / CERN-TH &
SphT. Saclay