

SEMINARS SEMINAIRES

Lundi 11 décembre

SEMINAIRE EF EN ELECTRONIQUE

à 11.00 h – Salle de Conférence EF
bât. 13, 2-005

ASICs pour les expériences au CERN

par Pierre JARRON / CERN-EF

L'ASIC, 'Application specific integrated circuit' fait partie depuis peu de temps de l'état de l'art de la technique des circuits électroniques analogiques et numériques. Qu'est ce qu'un ASIC, comment faire un ASIC, comment acquérir le savoir faire pour le concevoir, quels sont les outils de CAO, quels sont les différents types d'ASIC? C'est à toutes ces questions techniques que ce séminaire tentera de répondre. Une approche nouvelle s'impose pour la conception d'ASIC. Dans cette approche le concepteur de circuits électroniques doit faire un pas en avant dans le niveau d'abstraction et d'organisation de son travail, dans la façon de dialoguer avec les utilisateurs pour établir les spécifications, et dans les contacts avec l'industrie. Pour les expériences de physique de particules au CERN, les ASICs deviennent actuellement un moyen de haute technologie très puissant permettant de réaliser des systèmes électroniques de lecture incomparables tant en densité, complexité, performance, fiabilité et coût.

Mardi 12 décembre

PRESENTATION TECHNIQUE

de 10.00 à 12.00 & de 14.00 à 16.00 heures
bât. 73, 2-027

Alpha Technologie (F), représentant Coopertools (D), propose en démonstration :

- station de sondage Weller AG70IS à air chaud polyvalente pour CMS, composants (électroniques) montés en surface
- ensemble de dessoudage portable VP801EC Weller
- station de soudage Temtronic EC 2002 antistatique avec affichage numérique
- kit soudage-dessoudage WECP et IG101
- machine à placer les composants PPM

Langue : français

Renseignements : M. Diraison / FI / 4585

Tuesday 12 December

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Measurement of W and Z parameters in UA2

by K. EINSWEILER / CERN

The UA2 experiment has collected substantial samples of $W \rightarrow e\nu$ and $Z \rightarrow e^+e^-$ decays during the 1988 and 1989 runs at the CERN $p\bar{p}$ Collider. This data has been used to measure the production cross-sections and P_T (boson) distributions for the W and Z. In addition, the masses of the bosons have been extracted, leading to a precision measurement of $m(W)/m(Z)$. The final results of these analyses are compared with the predictions of the Standard Model.

* Tea & coffee will be served at 16.00 hrs.

Wednesday 13 December

TECHNICAL PRESENTATION

09.00 to 12.00 hrs – LEP Auditorium
bldg 30, 7th floor

Surface Consulting (D), representing Techware Systems, Vancouver (CDN), will introduce a new kind of process computer, the PAL 68000 specially developed for all thin film technologies and vacuum applications. It allows process engineers to automate their own processes without knowledge of automation. Based on a VME bus system, Techware offers a complete package including a new 4th generation language. Controlling, visualization, data-logging, all system parts can be adapted in a flexible way to each problem. In the case of particle physics PAL 68000 can be used as a very adaptable controller for vacuum systems, valves and measurements with a network possibility.

Wednesday 13 December

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference room

QCD phase transitions at finite temperature

by F. KARSCH / CERN

The order of the deconfinement phase transition has been under much debate during the last year. We present the conflicting statements and discuss the evidence in favour of a first-order transition which has been collected over the year. We also review the status of lattice simulations with light quarks, which aim at a quantitative analysis of the chiral transition. We discuss recent results on the order of the transition, its quantitative determination in units of hadron masses and comment on its flavour dependence.

Thursday 14 December

ISOLDE SEMINAR

at 10.00 hrs – TH Conference Room

Tilted foil polarization of separated reaction products and radioactive beams

by Michael HASS / NSRL, University of Rochester

The polarization of nuclei via the tilted-multifoil interaction provides a unique tool for determining diverse nuclear properties such as signs of quadrupole moments, magnetic moments of ground states and parity violation effects. This method has been shown to be especially powerful when applied to separated radioactive beam.

Thursday 14 December

ISOLDE COMMITTEE

Open session

Thursday 14 December
at 13.00 hrs – PS Auditorium, bldg 6, 2-024

1. *Introductory remarks (B. Jonson)*
2. *ISOLDE operation in 1989/1990 (H. Haas)*
3. *The plans for ISOLDE at the PS Booster (R. Billinge)*
4. *IP-73 Proposal : Pulsed collinear laser spectroscopy; G. Huber (Orsay - Mainz - Montreal - Lyon - GSI)*
5. *IP-68 Proposal : Nuclear polarization and magnetic resonance of implanted atoms with radiation detected optical pumping in solids; S. Matsuki (RCNP - Osaka - Kyoto - Tohoku - Riken - INS - Tokyo - Orsay - CERN)*
6. *IP-71 Proposal : On-line nuclear orientation of light nuclei; a first case study : I.B. Anisotropy from ^{37}Ar . L. Vanneste (NICOLE Collaboration)*
7. *IP-70 Proposal : neutron-proton interaction across $N = 20$, the case of ^{33}Si ; G. Walter (Strasbourg - Lyon - CERN - Madrid)*
8. *IP-74 Proposal : Study of ^{37}Ca β -decay with detection of delayed proton γ coincidences; A. Garcia (Seattle - Berkeley)*
9. *IP-75 Proposal : Shape coexistence phenomena following electronic capture processes; C. Miehé (Strasbourg)*
10. *IP-69 Proposal : Internal channeling studies of implanted oversized atoms using position sensitive particle detection; G. Langouche (Berlin - CERN - Leuven - Gothenburg)*
11. *IP-67 Proposal : Identification of band gap states in semiconductors by deep level transient spectroscopy of radioactive impurities; J. Petersen (Aarhus)*
12. *IP-66 Proposal : A search for axions by nuclear resonance scattering; G. Weyer (CERN - Aarhus)*
13. *IP-64 Proposal : Study of monopole transitions in ^{80}Kr and ^{78}Se ; P. Sona (Florence - Aarhus - CERN)*
14. *IP-65 Proposal : Search for low-lying O^+ states in the even-even Po isotopes; M. Huyse (IKS/ K.U. Leuven)*

15. *IP-72 Proposal : Nuclear orientation studies near doubly magic ^{132}Sn ; N. Stone (NICOLE Collaboration)*

16. *Any other business*

Closed session

Friday 15 December
at 08.30 hrs – DG Conference Room, bldg 60, 6th floor

Thursday 14 December

TECHNICAL PRESENTATION

14.00 to 16.00 hrs – bldg 73, 2-027

KSI, Kinetic Systems International SA (CH) will present their latest Fastbus and Camac products and announce the very first Fastbus peak sensing ADC. A 74-channel module with a zero suppressed readout like their 25 ps TDC which will be on display also. New Camac modules will be displayed and be operational, namely in-crate intelligent crate-controller, in-crate floppy and hard disks linked to a transient digitizer and stepping motor controller moving a pendulum.

Language : English

Information : M. Diraison / FI / 4585

Monday 18 December

CERN COLLOQUIUM

at 16.30 hrs – Auditorium

Experiments with an isolated subatomic particle at rest

by Hans G. DEHMELT, Nobel Prize for Physics 1989 / University of Washington, Seattle

Wednesday 20 December

PRESENTATION

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

User Interface Management System for modern workstations

by Peter BENGTON / Telelogic, Linköping

TeleUSE is a User Interface Management System, a set of powerful tools to develop user interfaces on modern workstations. The system permits the separation of a user's application code from the interactive interface. This speeds up prototyping, facilitates customization and enhances the portability of the application.