

RAPPEL

BIENS APPARTENANT AU CERN

Il est rappelé que les biens appartenant à l'Organisation qui sont acheminés via le tunnel reliant les différentes parties du domaine du CERN doivent être accompagnés d'une fiche de transfert dûment remplie et signée par un membre du personnel du CERN et jamais par un employé d'entreprise.

Le passage par les postes-frontière habituels n'est pas autorisé même avec une Fiche de transfert (sauf transport exceptionnel). En cas d'inobservation de cette règle les contravenants risquent des sanctions sévères de la part des Douanes. Dans ce cas, l'Organisation ne pourra pas intervenir en leur faveur.

Relations avec les Pays-hôtes
Tél. 5152

REMINDER

GOODS BELONGING TO CERN

You are reminded that goods belonging to the Organization which are transferred through the tunnel from one part of the CERN site to another must be accompanied by a transfer slip duly completed and signed by a member of the personnel, never by a firm's employee.

Transfers through the usual border posts are not authorized, even with a transfer slip, other than in exceptional cases. Anyone contravening this rule runs the risk of severe penalties imposed by the Customs. In such cases, the Organization will not be in a position to intervene on their behalf.

Relations with the Host States
Tel. 5152

SEMINARS SEMINAIRES

Monday 26 January

EP SEMINAR

at 16.30 hrs – Auditorium

A measurement of the gamma-gamma reaction giving two kaons and a pion in the E/iota mass region

by Adriaan BUIJS / University of Maryland and CERN

A $J^P = 0^-$ resonance [iota(1440)], observed in the reaction J/ψ giving a photon, two kaons and a pion is considered to be a glueball candidate. Therefore its formation in photon-photon collisions should be suppressed. We present upper limits obtained by the TPC/Two-gamma experiment at PEP on the iota(1440) formation rate by two quasi-real photons. Surprisingly, a signal is observed, when one of the photons is off mass-shell, suggesting the presence of a spin-one particle in the E/iota mass region.

Tuesday 27 January

CAS ACCELERATOR SEMINAR

at 14.30 hrs – LEP Auditorium

bldg 30 – 7th floor

Accelerators, microwave tubes and lasers

by J.D. LAWSON / Rutherford Appleton Laboratory

These devices rely on the interaction between coherent harmonic electromagnetic fields and ensembles of charged particles, 'free' or bound in atoms or solids. Their similarities and differences will be discussed, and a classical view of laser action in terms of concepts familiar to accelerator physicists will be presented. Connections with two viewpoints on Landau damping (and anti-damping) will be explored.

Wednesday 28 January

PS SEMINAR

bldg 6 – 2-024

at 11.00 hrs – PS Auditorium

Electron cooling at LEAR

by Andreas WOLF / Kernforschungszentrum Karlsruhe Institut für Kernphysik, Karlsruhe

When LEAR comes back into operation after the ACOL shutdown, it is planned to have the electron cooling device installed which has been developed by a CERN-Karlsruhe collaboration. In this talk, the advantages offered by electron cooling will be discussed. Following a summary of the development work, the electron cooling device and its installation in LEAR will be described. Based on results from its test operation, perspectives to the performance of the cooling device in LEAR will be given.

Wednesday 28 January

THEORETICAL SEMINAR

at 14.00 hrs – Theory Conference Room

Integrable theories and conformal invariance

by H.J. DE VEGA / CERN

This is intended to be an introductory review on integrable quantum field theories. The Yang-Baxter algebras, underlying infinite algebras to interpolate theories and the Bethe ansatz method will be discussed. Connection with gauge theories, Kac-Moody algebras and soliton theory will be considered as well as a method to compute the conformal characteristics (c and scaling dimensions) of gapless models.

Wednesday 28 January

CERN COMPUTER SEMINAR

at 16.00 hrs – Auditorium *

ANSA : the Advanced Networked Systems Architecture project

by Joseph R. SVENTEK / Cambridge, U.K.

The purpose of the Advanced Networked Systems Architecture project is to develop and achieve wide take-up of an architecture that enables the construction of truly integrated multi-vendor distributed systems. The ANSA project is a collaborative venture involving the UK Alvey Directorate and six corporate collaborators from the information technology field. In this presentation, the process of designing an architecture for distributed systems covering the spectrum from real-time systems to transaction processing will be outlined, and the key principle which permits this unification, that of selective transparency, will be described. An outline of the major components which make up the architecture will be given. Finally, the relationship of ANSA to other architectural initiatives in Europe, and to the ISO Open Distributed Processing initiative will be described.

Joseph Sventek is the deputy chief architect of the Advanced Networked Systems Architecture project. His activities include architectural support for multi-media applications, office document architectures, and secure multi-cast communication; he is also an occasional lecturer in Computer Science at Cambridge University. Prior to joining ANSA, he was leader of the Distributed Systems Research Group in the Computer Science Research Department of Lawrence Berkeley Laboratory. He also held an appointment as a faculty member in Computer Science at the University of California.

* Tea and coffee will be served at 15.30 hrs.

Thursday 29 January

TIS SEMINAR

at 14.30 hrs – bldg 593, Room 11
(Auditorium, Technical Training)

Research and experience on degradation of insulating materials by ionizing radiation

by H. SCHÖNBACHER / CERN

The presentation is a status report on the subject following international topical meetings and the present activities in international working groups of IAEA and IEC. Examples of CERN contributions are given including radiation damage data compilations, as well as accelerated test results and experience from the operation of our accelerators.

Thursday 29 January

PRESENTATION

at 15.00 hrs – DD Auditorium
bldg 31, 3-005

OPUS 5 – turn a PC into a personal mainframe

by J. WATSON / PANINFO

The OPUS 5 is a combination of an add-in board for IBM-PC/XT and AT computers and a complete demand-paged virtual memory implementation of System V UNIX. Together they deliver a fast complete desktop UNIX system. The hardware options deliver from 0.7 MIPS to nearly 5 MIPS and all include hardware floating point and memory management units. The OPUS 5 operating system is a complete implementation of V.2.2. System V.3 is currently in beta test and will be shipped the first quarter of 1987.

Thursday 29 January

CERN COLLOQUIUM

at 16.30 hrs – Auditorium *

Solar neutrinos

by T. KIRSTEN / Max-Planck Institut für Kernphysik, Heidelberg

Solar neutrinos probe the sun as well as fundamental neutrino properties. For more than 15 years, experimental neutrino astrophysics has been synonymous with the operation of the famous Homestake Chlorine detector by Raymond Davis, Jr. Now, finally, new experiments are coming up, solar neutrino spectroscopy is no longer utopian. Motivations, detection principles and status are described, with emphasis on the Gallex project forthcoming at the Gran Sasso Underground Physics Laboratory.

* Tea and coffee at 16.00 hrs.

Friday 30 January

PRIAM PROJECT VMEBUS CRATE INFORMATION MEETING

09.30 hrs to 12.00 hrs – formal session

14.00 hrs to 17.00 hrs – informal discussions

DD Auditorium – bldg 31, 3-005

Following the recent establishment of Blanket Purchase Contracts for the supply and support of VMEbus modules, the CERN PRIAM project (Interdivisional Project for Microprocessor Support) is continuing its efforts to set up similar conditions for complete, powered, cooled VMEbus crates. With this aim in mind, PRIAM is organizing a meeting to exchange information between potential suppliers and actual and future CERN users of VMEbus crates. All those intending to purchase or construct such crates or who have relevant experience are welcome to attend.

Information : C. Parkman / DD / 3963

Friday 30 January

CAS ACCELERATOR SEMINAR

at 14.30 hrs – Auditorium

Radio-frequency linear colliders

by W. SCHNELL / CERN

The classical electron linac can be developed to become the accelerating structure of a TeV electron-positron collider. A very high operating frequency is required for adequate efficiency. The peak power required to sustain an adequate accelerating gradient may be generated by an auxiliary beam. One way of delivering energy to the auxiliary beam is by means of a superconducting drive linac. It is found that present-day performance of superconducting cavities is already sufficient to make such a scheme viable.

Monday 2 and Tuesday 3 February

PS and SC COMMITTEE

Open Session

Monday 2 February

at 14.00 hrs – Council Room

To be continued on

Tuesday 3 February – at 09.00 hrs

1. Status report on ISOLDE experiments (C. Thibault).
2. Diffusion of implanted radioisotopes in solids (Münster - ISOLDE collaboration; PSCC/87-1/P100; 87-2/S100; H. Mehrer).
3. Radioactive ions for surface characterization (Aarhus - Berlin (FU, Hahn - Meitner Inst., TU) - CERN - Konstanz; PSCC/87-3/P101; 87-4/S101; H. Haas).
4. Lattice location of radioactive probes in semiconductors and metals by electron and positron channeling (Konstanz; PSCC/87-5/P102; 87-6/S102; H. Hofsäss).
5. Nuclear ground-state properties of alkaline-earth ions by optical pumping, state-selective charge transfer and particle detection in fast ion-beam collinear laser spectroscopy (CERN - Leuven - Mainz - Montreal; PSCC/87-7/P103; 87-8/S103; R.E. Silverans).
6. Addendum to PS 194 (Aarhus - CERN - SIN - Stockholm; PSCC/86-47/P64 Add. 3; E. Huggerhøj).
7. Status report on experiment PS175 (Karlsruhe (KfK, Univ.); PSCC/86-48/M269; L. Simons).
8. Addendum to PS177 (Amsterdam NIKHEF - Darmstadt GSI - Grenoble CEN - Orsay CSNSM - Saclay CEN DPhN - Uppsala - Warsaw; PSCC/87-10/P15 Add. 1; M. Rey-Campagnolle).
9. Status report on experiment PS170 (Ferrara - Padua - Saclay (CEN DPhN, DPhPE) - Turin; PSCC/86-40/M266; P. Dalpiaz).
10. Progress report on experiment PS185 (Carnegie Mellon - Erlangen - Freiburg - Illinois - Jülich - Rice Uppsala - Vienna; PSCC/87-11/M270; K. Kilian).
11. Status report on PS195 (Athens Demokritos - Basel - CERN - Fribourg - Liverpool - Saclay CEN DPhPE - SIN - Stockholm - Thessaloniki - Zürich ETH; P. Pavlopoulos).

Closed Session

Tuesday 3 February

at about 11.00 hrs – 6th floor Conference Room.

Monday 2 February

EP SEMINAR

at 16.30 hrs – Auditorium

An electron beam dump search for light, short-lived particles

by E.M. RIORDAN / Univ. of Rochester

We report preliminary results of an electron beam dump search for neutral, penetrating particles X^0 with masses in the range 1 to 12 GeV and lifetimes between 10^{-14} and 10^{-11} sec. No evidence was found for such an object in runs with a total of 10^{15} electrons on dump. We specifically rule out the existence of any possible 1.8 MeV pseudoscalar with a lifetime greater than 2×10^{-14} sec and an absorption cross-section in matter less than $150A^{0.7}$ mb per nucleus. Inasmuch as measurements of the electron's anomalous magnetic moment constrain the lifetime to greater than 7×10^{-14} sec for a neutral 1.8 MeV pseudoscalar boson, this experiment excludes the recent GSI phenomenon as an elementary pseudoscalar.

Wednesday 4 February

PRESENTATION

at 10.00 hrs – DD Auditorium

bldg 31, 3-005

IBM 9370 Information System

by H. SADLOWSKI / Departmental Systems, IBM, Böblingen

The IBM 9370 is a general purpose computer family with 370 architecture and integrated I/O adapters. The compact design makes use of the standard 19 inch rack. In this rack may also be fitted modular units such as processors, disks and tapes. A complete system may consist of several racks. The integrated I/O controllers reside on one or several cards which may be inserted into the processor or in a separate I/O unit. Available controllers include Communications, Workstations and DASD/Tape subsystem controllers as well as the System/370 Block Multiplexer Channel. Software support includes VM/SP, VSE/SP, IX/370, MVS/SP with packages like TCP/IP to support the connectivities aspect.

Monday 9 and Tuesday 10 February

LEP MACHINE ADVISORY COMMITTEE

Open Session

Monday 9 February

LEP Auditorium – bldg 30, 7th floor

- 14.00 Commissioning of LEP preinjectors
J. Madsen / J.-P. Delahaye
- 15.00 Status of PS for electron-positron operation
Y. Bacconnier, J.-P. Riinaud
- 16.00 Status of SPS conversion for electron-positron operation
B. de Raad, L. Evans, P. Faugeras, E. Weisse

Closed Session

Tuesday 10 February

at 11.00 hrs

bldg 60 – 6th Floor Conference Room

TRAINING AND EDUCATION ENSEIGNEMENT

ENSEIGNEMENT GENERAL

Tél. 2844

Jeudi 29 janvier

de 13.00 h à 13.30 h – Amphithéâtre

Science pour tous

par R. CARRERAS

Mardi 3 février

LES SCIENCES AUJOURD'HUI

à 20.00 h précises – Auditorium

(jusqu'à environ 22.00 h)

par R. CARRERAS

Rafel Carreras, responsable du programme d'Enseignement général au CERN, commentera et expliquera un choix d'articles parus récemment dans des revues scientifiques, et qui couvrent l'ensemble des sciences physiques et biologiques ainsi que certains aspects des relations science-société. Une attention particulière est portée au langage et aux notions utilisés afin que les explications et les commentaires soient accessibles aux personnes n'ayant pas de formation scientifique.

Entrée libre

(Please note that the lecture will be given in FRENCH)

Service des Relations Publiques

Tél. 2722

ACADEMIC TRAINING

Tel. 2844-3364

3 to 12 February

11.00 hrs to 12.00 hrs – Auditorium

Physics with LEP and SLC

by F. RENARD / U.S.T.L., Montpellier,
G.B. CHADWICK / SLAC and CERN,
F. DYDAK / CERN

Lectures 1 to 4 (3 to 6 Feb), by F. Renard

Lectures 5 and 6 (9 – 10 Feb), by G.B. Chadwick

Lectures 7 and 8 (11 – 12 Feb), by F. Dydak.

In lectures 1 to 4, the general properties of electron-positron collisions (kinematics of annihilation and scattering processes, symmetry properties, rules for polarization effects) will be recalled. We then present the various sectors of the Standard Model which have not yet been explored and which will be accessible to SLC and LEP : precision tests of Z^0 properties, toponium physics, heavy quark properties, neutrino counting, Higgs boson searches, W physics and Yang-Mills couplings, and gamma-gamma collisions. We finally discuss attempts to construct theories beyond the Standard Model (extended gauge groups, supersymmetry, compositeness) and show to what extent SLC and LEP will be able to explore these new domains of physics.

Lectures 5 and 6 will concentrate on physics that is special to the SLC : realization and use of polarization, small beam size for lifetime studies, etc. The current and projected status of the SLC project and the SLC detectors will be given.

Lectures 7 and 8, after recalling specific features of LEP, will concentrate on the relative merits of the four LEP detectors in performing the LEP physics programme up to $\sqrt{s} = 200$ GeV.

INFORMATIONS

GENERALES

GENERAL INFORMATION

COMMISSION TIS – Groupe ES

Sécurité Générale – Electricité

Les documents suivants ont été publiés :

- Section 'A' du Code de Sécurité CERN :
CODE DE SÉCURITÉ A 1 – CODE MÉDICAL CERN
SAFETY CODE A 1 – CERN MEDICAL CODE
Ce code annule le chapitre 3, page 4, du CODE B 13 (Code CHIMIE).
- INSTRUCTION DE SÉCURITÉ No. 23, Révision 1 (en anglais)
SAFETY INSTRUCTION No. 23, Revision 1 (in English).
(La révision en français sera faite prochainement)
Rappel : L'I.S. No. 23 fait partie des annexes du Code C 1 relatif à l'électricité.

Vous pourrez obtenir ces documents :

- auprès de votre D.S.O. (Divisional Safety Officer),
- au Secrétariat de votre Division,
- en téléphonant à la Commission TIS :
Mlle R. BETTY – tél. 4860,
M. J. MOTTE – tél. 5784.