

SEMINARS SEMINAIRES

MONDAY 12 NOVEMBER

EP SEMINAR

at 17.00 hrs - Auditorium

"Evolution of Gaseous Detectors"

by F. Sauli / CERN-EP

Abstract : Multiwire gas counters are widely used in experimental physics. Have we already reached the intrinsic limitation in the accuracy, rate capability, time resolution of this kind of detector? Recent work done at CERN and in other Laboratories indicates that a substantial amount of information is still unexploited, and better performance devices may be envisaged in the near future. Some attractive recent developments will be reviewed, in particular on very high pressure operation, on the multistep avalanche chamber and on Čerenkov ring imaging.

TUESDAY 13 NOVEMBER

PROTON SYNCHROTRON AND SYNCHRO-CYCLOTRON COMMITTEE

- Open Session

at 9.00 hrs - Council Chamber

- 1) Introductory remarks, by L. Van Hove.
- 2) Status reports :
 - SC 68 Muonic chemistry in condensed matter (Parma); PSCC/79-46/M35;
 - SC 81 Formation and interaction of muonium in insulators and semiconductors (CERN-Parma-Uppsala); PSCC/79-48/M37;
 - SC 82 Muonium and muons in synthetic polymers (CERN-London (Imperial College)-Parma-Rutherford Laboratory; C. Buccì).
- SC 65 Local magnetic fields in ferromagnetics studied by positive muon precession (CERN-Uppsala);
 - SC 76 Muon diffusion in niobium in the presence of traps (CERN-Geneva-Uppsala-Jülich; PSCC/79-47/M36; E. Karlsson).
- 3) Future of the ISOLDE programme (PSCC/79-39/M31; 79-40/M32; P.G. Hansen).
- 4) Addendum to Expt. PS 163 : Search for narrow baryonium states near the $\bar{p}p$ threshold (Heidelberg-Saclay; PSCC/79-36/Add. to PSC/78-15/P11; T. Walcher).

Proposal : Search for Σ hypernuclear states using the strangeness exchange reactions (K, π^-) and (K, π^+) (Heidelberg-Saclay; PSCC/79-37/P10; 79-38/S10; W. Brückner).

- Closed Session

at 14.30 hrs - Sixth Floor Conference Room.

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs - Auditorium (*)

"The First Year of MARK-J at PETRA"

by H.B. Newman / DESY

Abstract : We report on the experimental results by the MARK-J collaboration at PETRA on measurements of R , on tests of quantum electrodynamics and charged lepton universality and the discovery of three jet events due to gluon emission.

(*) Note : Those attending this seminar are cordially invited to the Salle des Pas Perdus (just outside the Council Chamber) at 16.00 hrs to meet the speaker and for informal discussions. Tea and coffee will be provided.

WEDNESDAY 14 NOVEMBER

TECHNICAL PRESENTATION

09.00 hrs/11.00 hrs - Room 2-005
(Bldg.13 - D2 Map CERN Meyrin)

MOTOROLA (USA/CH) seminar : "A NEW CONCEPT IN FIBER OPTICS" - presentation of connectors developed jointly by AMP and MOTOROLA - other packing technics - basic fiber optic transmission system - fiber optic system design considerations - applications of fiber optic systems - advantage of fiber optic systems - open discussion.

Language : English

Information : M. Diraison / FI / 4585.

THEORETICAL SEMINAR

at 14.00 hrs - Theory Conference Room

"The $N = 8$ Supergravity Theory in Superspace"

by L. Brink / Göteborg

Abstract : The $N = 8$ supergravity theory is the maximal theory with linear realization of supersymmetry on a spectrum with spin up to 2. It has 1 spin -2, 8 spin $-\frac{3}{2}$, 28 spin -1, 56 spin $-\frac{1}{2}$ and 70 spin -0 states. This theory will be presented in superspace.

DD SEMINAR

at 16.00 hrs - DD Conference Room
(Bldg.31 - 3rd floor)

"STELLA Communication Software and Hardware"

by B. Segal / CERN-DD

Abstract : The STELLA project links CERN at 1 Mbit/sec. with six collaborating laboratories via the European satellite OTS-2. A minicomputer and earth station of locally chosen type are provided at each site, and a CERN-developed Communications Interface Module (CIM) is used to connect them. The design and function of the CIM, based on a microcomputer, will be described in the talk.

WEDNESDAY 14 NOVEMBER

CERN ENERGY SEMINAR - TECHNICAL LEVEL

at 16.30 hrs - Theory Conference Room

"History and Philosophy of Radioactive Waste Management"

by R. Rometsch / Nat. Cooperative Society
for the Storage of Radioactive Waste Materials, Baden

Abstract : The management of radioactive waste from the nuclear fuel cycle is currently a matter of particular concern, although engineered storage, as practised since almost forty years, provides a satisfactory solution. Political decisions are now required in many countries. The alternative in its crudest form is : more or less immediate disposal with no need for further control on the one hand or indefinite storage with perpetual care on the other hand. Reasons for and against both alternatives are discussed in the light of the historical development of waste management concepts. Legal, administrative and technical aspects of radioactive waste disposal in Switzerland are described.

THURSDAY 15 NOVEMBER

ESO ASTROPHYSICS SEMINAR

at 14.00 hrs - DD Conference Room
(Bldg.31 - 3rd floor)

"The Distribution of Mass and Light in Outer Parts of Spiral Galaxies"

by P.C. Van Der Kruit / Groningen

Abstract : Rotation curves of spiral galaxies suggest large amounts of mass beyond the classical optical extent of most spiral galaxies. We investigate possible constraints on the nature and distribution of this material by combining studies of mass distributions from Westerbork HI-studies, light and colour variations with radius from photographic surface photometry and mapping of the velocity dispersion perpendicular to the plane of the HI in face-on systems with the Westerbork telescope.

ISR SEMINAR

at 14.30 hrs - ISR Auditorium
(Top floor of Building 30)

"Superconducting-Cavity Oscillators and their Application to Physics Experiments"

by J. Turneaure / Stanford and Wuppertal

Abstract : The frequency stability ($10^{-16} \delta \nu / \nu$) of oscillators at 10 GHz whose frequency determining element is a high-Q superconducting cavity will be described. The application of these superconducting-cavity oscillators to a null gravitational red-shift experiment and to an experiment to set an upper limit on the time drift of the fine structure constant will be discussed.

(Note time and date!)

CERN ENERGY SEMINAR - GENERAL LEVEL

at 16.30 hrs - Auditorium (*)

"Radioactive Waste in Switzerland -
Where from, Where to ?"

by R. Rometsch / Nat. Cooperative Society
for the Storage of Radioactive Waste Materials, Baden

Abstract : Some 200 nuclear power stations all over the world are currently producing nearly 100 metric tonnes of radioactive substances considered to be waste. Until their decay to harmless levels of radiotoxicity they have to be isolated from the biosphere. Decay and radiation characteristics of radionuclides are well known. Conditions for storage and ultimate storage or disposal can therefore be derived with certainty. They are the basis for many waste storage projects and the related geological investigations. Long term safety of such storage or disposal is a matter of intense debate.

(*) Note : Those attending this seminar are cordially invited to the Salle des Pas Perdus (just outside the Council Chamber) at 16.00 hrs to meet the speaker and for informal discussions. Tea and coffee will be provided.

FRIDAY 16 NOVEMBER

PRESENTATION TECHNIQUE

09h00 - 15h00 / Bus de démonstration
(Parking PTT, près Bât.63 - C2 Plan CERN Meyrin)

SCHLUMBERGER INSTRUMENTATION SA (CH), représentant SCHLUMBERGER (Solartron UK et Selfram F), propose une démonstration d'instrumentation électronique de laboratoire : oscilloscopes compacts à double voie pour bandes passantes 15 MHz, 40 MHz, 120 MHz et 300 MHz - à tiroirs 175 MHz avec amplis différentiels, base de temps simple ou double - à mémoire 75 MHz et 175 MHz + compteurs-fréquences mètres pour fonctions classiques et mesure de phase, bandes passantes 120 MHz, 520 MHz et 1250 MHz, choix de stabilité du pilote (jusqu'à $5 \cdot 10^{-10}$), interface GP-IB + générateurs de fonctions (sinus, triangle, carré) de $5 \cdot 10^{-4}$ Hz à 10 MHz, wobulateur 100 KHz-120 MHz + tables traçantes X/Y modèles très rapides (150 cm/s) avec filtres d'entrées commutables, très haute impédance, utilisables avec dérouleur synchrone.

Langues : Allemand, anglais, français

Renseignements : M. Diraison / FI / 4585.

MONDAY 19 NOVEMBER

EP SEMINAR

at 17.00 hrs - Auditorium

"Laser Spectroscopy for Probing Nuclear Structure Off Stability"

by E.W. Otten / Mainz Univ. and CERN

WEDNESDAY 21 NOVEMBER

PRESENTATION TECHNIQUE

10h00/16h00 - Salles de Conférence ISR
(Bât.30 - Etage 4 - Salle 035
Etage 5 - Salle 046)

SYSTEME CHÂSSIS EUROPA : Firmes

- AEG-TELEFUNKEN (DW)
- CRITCHLEY (GB)
- ELMA ELECTRONIC (CH)
- IMHOF-BEDCO (GB)
- ITT (DW)
- KNURR (DW)
- SCHROFF (DW)
- SIEMENS (DW)
- O.S.L. (FR)
- VERO ELECTRONICS (DW)

L'exposition devrait permettre de contrôler, d'après la norme DIN 41494, la comptabilité mécanique des différents produits en vue de leur standardisation dans les Magasins.

Les utilisateurs sont invités à déposer leurs suggestions dans les boîtes aux lettres prévues à cet effet.

Renseignements : Section Technique du Service des Magasins - M.L. Symons/FI/5991

THURSDAY 22 NOVEMBER

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs - Auditorium

"Jet Analysis of e^+e^- Interactions at High Energies"

by S. Brandt / Siegen Univ.

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POUR INFORMATION / FOR INFORMATION

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VENDREDI 16 NOVEMBRE

SEMINAIRE DU LAPP

à 10h30 - Amphithéâtre du LAPP

Laboratoire d'Annecy-le-Vieux de Physique des Particules, chemin Bellevue, Annecy-le-Vieux, (Haute-Savoie, France)

"La Physique des Jets aux Anneaux de Collision Proton-Antiproton à $\sqrt{s} = 540 \text{ GeV}$ "
par M. Della Negra / LAPP

Renseignements complémentaires auprès de H. Pessard/CERN-EP, Tél. 6526 ou Laboratoire d'Annecy-le-Vieux, Tél. (023) 23.32.45, int.327.

BULLETIN CERN

46/79

TRAINING AND **EDUCATION** **ENSEIGNEMENT**

LUNDI 12 NOVEMBRE

ACADEMIC TRAINING

(Tél. 2844)

de 11h00 à 12h30 - Salle de la Théorie

"Analyse des Structures par la Méthode des Éléments Finis"

par J.F. Imbert / CNES, Toulouse

(Leçon 1)

Résumé : La méthode des éléments finis est aujourd'hui couramment utilisée pour le calcul des structures les plus complexes avec un degré de raffinement qui ne serait pas envisageable avec les méthodes traditionnelles.

Ce cycle de conférences est consacré à l'exposé des principes fondamentaux de la méthode ainsi que des techniques les plus récentes de modélisation des structures dans le domaine linéaire.

Dans une première partie, sont présentées les bases théoriques de la méthode ainsi que les techniques matricielles d'analyse des structures. On aborde dans une deuxième partie la formulation des éléments finis pour la résolution des problèmes d'élasticité. Dans une troisième partie sont exposées les techniques de modélisation des plaques et coques. Enfin, on aborde succinctement l'utilisation de la méthode pour les calculs dynamiques.

TUESDAY 13 AND WEDNESDAY 14 NOVEMBER

ACADEMIC TRAINING

(Tel. 2844)

at 11.00 hrs - Auditorium

"The Physics of Superconducting Materials"

by O. Fischer / Univ. of Geneva

(Lectures 3 and 4)

JEUDI 15 NOVEMBRE

ENSEIGNEMENT GENERAL

(Tél. 2844)

de 13h00 à 13h30 - Amphithéâtre

"Science pour Tous"

par R. Carreras

LUNDI 19 NOVEMBRE

ACADEMIC TRAINING

(Tél. 2844)

de 11h00 à 12h30 - Salle de la Théorie

"Analyse des Structures par la Méthode des Éléments Finis"

par J.F. Imbert / CNES, Toulouse

(Leçon 2)