

SEMINARS SEMINAIRES

MONDAY 10 AND TUESDAY 11 NOVEMBER

PS AND SC COMMITTEE

- Open Session (Monday 10 November)
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- at 9.00 hrs - Council Chamber
- 1. Information from the Research Director-General.
- 2. Proposal to search for neutrino oscillations (Padova (Univ. + INFN)-Pisa (Univ. + INFN)-Athens-Wisconsin Univ.; PSCC/80-130/P33; 80-131/S33; 80-132/P33/Add. 1; M. Baldo-Ceolin).
- 3. Status of machine operation (L. Hoffmann and R. Neugart).
- 4. Status reports :
 - SC 77 A determination of the branching ratio for the decay $\pi^0 \rightarrow e^+e^-$ (Amsterdam (Free Univ.)-Birmingham-Cagliari-CERN-Ljubljana (Univ. + I.J.S.)-Oxford-Torino (Univ. + INFN); PSCC/80-122/M68; J. Davies).
 - SC 81 Formation and interaction of muonium in insulators and semi-conductors (CERN-Parma-Uppsala; PSCC/80-125/M69; R. Tedeschi).
 - PS 159 Strange dibaryon systems (Rome-Saclay-Vanderbilt; PSCC/80-128/M72; G. Martellotti).
 - PS 162 Study of the structure of exotic light nuclei produced at the PS (Orsay (René Bernas)-Orsay (Aimé Cotton)-Orsay (IPN); PSCC/80-127/M71; M. Langevin).

Closed Session (Monday 10 November)
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at 14.00 hrs - Sixth Floor Conference Room
continuing on Tuesday 11 November at 9.00 hrs
in the Sixth Floor Conference Room.

MONDAY 10 NOVEMBER

EP SEMINAR

at 17.00 hrs - Auditorium
"Progress on Cherenkov ring imaging"
by Anna Peisert / CERN

Abstract : Photons emitted in the ultraviolet domain by fast charged particles through the Cherenkov effect can be detected and localized in multiwire detectors of special design, and their pattern used for particle identification up to very high energies. The detection efficiency and resolution obtained in a test run using a multistep detector with TEA as photoionizing vapour (7.5 eV threshold) will be presented, as well as preliminary results obtained with TMAE, a vapour having extremely low ionization potential (5.4 eV).

TUESDAY 11 NOVEMBER

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs - Auditorium *)

"From the study of the decay of charmed hadrons to that of the proton decay"

by M. Conversi / Univ. of Rome

Abstract : After some personal recollections on free particle lifetime measurements carried out over the past 40 years, the status of our present knowledge about the lifetime of charmed hadrons will be briefly reviewed. The proton lifetime predicted by the grand unified theories lies on the opposite side of a time interval spanning over some 52 orders of magnitude. An approach to study experimentally the expected decay modes of the nucleon will be discussed, with emphasis on the possibility to "see" directly these extremely rare events by a modular "visual" detector, for the total mass of which the 10 Kt region can be attained at a cost still accessible to the European Physics Community.

*) 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.

WEDNESDAY 12 NOVEMBER

THEORETICAL SEMINAR

at 14.00 hrs - Theory Conference Room

"On the instanton contribution to the string tension"

by R. Jengo / Univ. of Trieste and ICTP

Abstract : We study the interquark force for the pure SU(2) gauge theory in 3+1 dimensional continuum in function of the relative distance λ . We find that the instantons induce a sharp rise of the confining force, we compute the magnitude of the effect and we discuss the picture and the possible extrapolation for $\lambda \rightarrow \infty$.

DD SEMINAR

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

" μ Ps for μ Rs"

by A.J. Shave / CERN-HS

Abstract : CERN's Radiation Protection Group has been computerizing its data acquisition facilities during the last few years. About 250 fixed installed radiation monitors of several types produce digitized information which is fed into 24 microprocessor-controlled digital data loggers. These are connected to a dedicated Nord-10 computer on the SPS control network which collects data from the monitors and stores them in various databases. These data are then available at consoles in the SPS main control room and at the RP computer centre. Frequent checks are made for radiation alarms and for equipment faults and the information passed on to the appropriate people via a microprocessor-based alarm network. These various systems will be described with indications of the present status and some future plans.

THURSDAY 13 NOVEMBER

THEORETICAL SEMINAR

at 14.00 hrs - Theory Conference Room

"Multi-boson electroweak theories"

by D. Schildknecht / Bielefeld

Abstract : While the standard $SU(2) \times U(1)$ gauge theory of the electroweak interaction is a minimal model consistent with our present empirical information, "heretic" theories containing a richer charged as well as neutral boson structure in the 100 GeV energy range are not excluded. In general photon weak boson mixing models, the mean charged boson mass is bounded, while the mean neutral boson mass is determined by the mean charged one. Gauge theories based on $U(1) \times SU(2) \times G$ appear as special cases, in which the general mass relation reduces to the Weinberg mass relation. Restrictions from "low energy" PETRA measurements on the boson spectrum are pointed out.

(The talk is directed to theorists as well as experimentalists.)

1980 BERNARD GREGORY MEMORIAL LECTURES

Dr. C. Marchetti of IIASA, Vienna, will be the second Gregory lecturer and visits CERN from 12 to 14 November. He will give one lecture

"On the dynamics of energy systems"

at 16.30 hrs, in the Auditorium.

The Gregory lectures, honouring the memory of Bernard Gregory, are funded by voluntary contributions. It was deemed appropriate to organize the 1980 lectures on the theme of the energy problem in a long-range perspective. A panel discussion with the participation of J.C. Balaceanu, J. Pettit, P. Rebut and C. Vauze on the theme "Les énergies futures (au-delà de l'an 2000)" took place in Paris (Institut Auguste Conte) on Tuesday 21 October. Gregory lectures are organized once a year both at CERN and in Paris. The Proceedings of the 1979 Gregory lectures (Prof. V.F. Weisskopf) are available as CERN 80/03 Yellow Report.

FRIDAY 14 NOVEMBER

DD SPECIAL SEMINAR

DD Auditorium (3rd floor - Bldg.31)

A presentation will be made on a recent, powerful entry into the IBM compatible CPU market, i.e. the National Advanced Systems Co. AS/9000. The programme is as follows :

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| 10.30 hrs | AS/9000 - Product Overview
by John Curran, Director of Product Marketing, NAS International |
| 11.00 hrs /
12.15 hrs | AS/9000 - Technical Presentation
by Tom Frana, Director of System Development |
| 14.00 hrs | For the remainder of the presentation and questions. |

VENDREDI 14 NOVEMBRE

SEMINAIRE PS

à 15h00 - Auditoire PS (Bât.6)

"Détection de quarks libres - Mesure de l'ionisation primaire dans une grande chambre à avalanche"

par F. Rohrbach / CERN-EF

Résumé : Après une présentation succincte de l'expérience WA 44 sur la détection de quarks libres dans le faisceau neutrino, les problèmes techniques et les caractéristiques principales de la chambre seront exposés. Les premiers résultats sur la mesure de l'ionisation primaire dans ce type de détecteur seront présentés.

MONDAY 17 NOVEMBER

EP SEMINAR

at 17.00 hrs - Auditorium

"Forward Particle Production In High Energy E^- Interactions"

by W.C. Louis / Rutherford Lab.

TUESDAY 18 NOVEMBER

ISOLDE SEMINAR

at 10.30 hrs - Theory Conference Room

"Exotic heavy particles - Can ISOLDE find them ?"

by J. Ellis / CERN

DD SEMINAR

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

"TOOLPACK - An Integrated System of Tools for Mathematical Software Development"

by L. Osterweil / Dept. of Computer Science, Univ. of Colorado

CERN PARTICLE PHYSICS SEMINAR

at 16h30 - Auditorium

"Review of Recent SC Experiments"

by H. Ravn / CERN-EP

WEDNESDAY 19 NOVEMBER

CERN COMPUTER SEMINAR

at 16.00 hrs - Council Chamber

"Automated Analysis of Medical Radiographs"

by J. H. Kulick / Dept. of Computing and Information Science, Queen's Univ., Kingston, Ontario, Canada