

SEMINARS SEMINAIRES

MONDAY 10 MARCH

EP SEMINAR

at 17.00 hours - Auditorium

"Probing the Neutron and the Proton with High Energy Neutrinos"

by G. A. Snow / Univ. of Maryland and CERN

Abstract: The FERMILAB 15' bubble chamber filled with deuterium was exposed to a wide band neutrino beam in late 1978. Analysis is being carried out by the E545 collaboration, IIT - MD - Stony Brook - Tohoku - Tufts. In first approximation νn and νp interactions can be distinguished event by event. Before and after correcting for rescattering, striking differences between neutron and proton are found in the charged current cross-sections, structure functions, charged hadron multiplicities and strange particle production characteristics. If time permits, work in progress on charm particle production and on neutral current reactions will also be presented.

TUESDAY 11 MARCH

CERN COMPUTER SEMINAR

at 11.00 hours - Council Chamber

"The Proof of the Four Colour Theorem and other Applications of Computers to Mathematics"

by Prof. R.F. Churchhouse / University College, Cardiff, UK

Abstract: Over the past few years computers have been used in several branches of mathematics to discover, and occasionally to prove, theorems. The most celebrated feat was the proof, in 1976, of the four colour conjecture. The lecture will include an account of how this was done and several other examples of computer-aided discoveries and theorems will be given.

CERN COLLOQUIUM

at 16.30 hours - Auditorium*)

"The active region in galactic nuclei: a black hole or a black box?"

by F. Pacini / Institute of Astronomy, Florence

Abstract: A summary of classical and recent results related to the very central region in galactic nuclei. We shall then discuss possible models for the source of activity and the question whether there is real evidence for the existence of massive black holes in galactic nuclei.

*) **Note:** Those attending this colloquium 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 12 MARCH

THEORETICAL SEMINAR

at 14.00 hours - TH Conference Room (Bldg. 4)

"Bound states in QCD in other asymptotically free theories"

by J.-L. Gervais / Ecole normale supérieure, Paris

THURSDAY 13 MARCH

ESO ASTROPHYSICS SEMINAR

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

"The Most Luminous Stars"

by I. Appenzeller / Heidelberg

Abstract: The following questions will be discussed: Which are the most luminous stars known? What are their characteristic properties? What determines the upper limit of stellar luminosities? Are there differences between the most luminous stars in different galaxies?

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hours - Auditorium*)

"Recent results on e^+e^- interactions in the energy range 1.4 - 2.2 GeV from the magnetic detector DML at DCI"

by J.-C. Bizot / Orsay

Abstract: The e^+e^- annihilation into hadrons has been studied for $1.4 < \sqrt{s} < 2.2$ GeV. The total integrated luminosity was 1500 nb^{-1} over the whole energy range. One constraint at least was required in the reconstruction of the events. Cross-sections are given for production of exclusive channels: $\pi^+\pi^+\pi^-\pi^-$ including $\rho^0\pi^+\pi^-$, $\pi^+\pi^+\pi^-\pi^0$ including $\omega\pi^+\pi^-$, K^+K^- , $K_S^0K_L^0$, $K_S^0K^\pm\pi^\mp$ including K^*K , $K^+K^-\pi^+\pi^-$ including $K^*K\pi$ and of inclusive K_S^0 . The ρ' (1.55) is observed in the $4\pi^{(\pm)}$ channel with high statistics. A resonant effect in the $\omega\pi^+\pi^-$ channel is established at 1.64 GeV with 6.7 standard deviation. This structure is interpreted as a new ϕ' vector meson. All the results between 1.4 and 1.8 GeV are also interpreted with the ρ'^0 , ω' and ϕ' elements of a new nonet of vector mesons around 1.6 GeV.

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FRIDAY 14 MARCH

SPECIAL CERN PARTICLE PHYSICS SEMINAR

at 16.30 hours - Auditorium*)

"Upsilon physics at CESR"

by K. Berkelman / Cornell University

Abstract: Three upsiion states at 9.4, 10.0 and 10.3 GeV mass have been observed in electron-positron annihilations at the Cornell electron storage ring using the magnetic detector facility. Preliminary cross-section measurements have been made also in the 10.6 GeV region where one expects the 4s upsiion state and the threshold for $b\bar{b}$ production.

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MONDAY 17 AND TUESDAY 18 MARCH

PROTON SYNCHROTRON AND SYNCHRO-CYCLOTRON COMMITTEE

- Open Session - Monday 17 March
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- at 10.00 hrs and 14.00 hrs - Council Chamber
- 1) Introductory remarks by Prof. L. Van Hove.
- 2) Status reports:
 - SC 77 A determination of the branching ratio for the decay $\pi^0 \rightarrow e^+e^-$ [Amsterdam (IKO)-Birmingham-Cagliari-CERN-Ljubljana-Oxford-Turin; PSCC/79-54/M42; 80-23/M53; J.D. Davies].
 - SC 78 Radiobiological experiments using the SC 600 MeV neutron beam (CERN-CNEN-Manchester; PSCC/80-4/M46; M. Bianchi).
 - SC 82 Muonium and muons in synthetic polymers [CERN-London (Imp. Coll.)-Parma-Rutherford Lab.; PSCC/80-24/M54; G. Stirling].
 - PS 162 Study of the structure of exotic light nuclei produced at the PS [Orsay (René Bernas; Aimé Cotton; I.P.N.); PSCC/80-15/M50; C. Thibault].
- 3) New proposal:

Study of target fragmentation in the interaction of 86 MeV/A ^{12}C with tantalum, bismuth, and uranium (Berkeley-Corvallis-Studsvik; PSCC/80-18/P12; 80-19/S12; K. Aleklett).
- 4) Letters of Intent for LEAR (continuation from previous PSCC meeting).
- Closed Session - Monday 17 March at 16.00 hrs
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- Tuesday 18 March at 09.00 hrs
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- in the Conference Room, 6th Floor
(Administration Building).

MONDAY 17 MARCH

SEMINAIRE ISR

à 14h30 - Salle de Conférence des ISR
(Bâtiment 30, 7^e étage)

"Aimants à noyaux fer-béton pour LEP"

par J.-P. Gourber / ISR

TUESDAY 18 MARCH

SPECIAL SEMINAR

at 16.30 hours - Auditorium

"The status of accelerator research and development at Fermilab"

by R. P. Johnson / Fermilab

WEDNESDAY 19 MARCH

PS SEMINAR

at 11.00 hours - PS Conference Room (Bldg.6)

"Space charge instabilities in intense ion beams"

by I. Hofmann / Max Plank Institut für
Plasmaphysik, Garching

THURSDAY 20 MARCH

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hours - Auditorium

"Search for long-lived particles in the S1 beam"

by L. Moscoso / DPNHE, Saclay

FRIDAY 21 MARCH

CERN COMPUTER SEMINAR

at 11.00 hours - Council Chamber

"Relational Algebra as a Database Query Language for Scientists"

by P.M.D. Gray / University of Aberdeen,
Scotland

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POUR INFORMATION / FOR INFORMATION
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VENDREDI 14 MARS

SEMINAIRE DU LAPP

à 10h30 - Amphithéâtre du LAPP

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

"Un photomultiplicateur sensible à la
position"

par D. Sillou / LAPP

*Résumé : Description du principe d'un photomulti-
plicateur à localisation et résultats obtenus
lors des tests d'un prototype.*

Renseignements complémentaires auprès de
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int. 327.