

Thursday 15 October

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs - Auditorium *)

"Measurement of the Cross-Section of Antineutrino scattering on electrons"

by Michael Jonker / NIKHEF/H Amsterdam-CHARM Collaboration

The fine grained calorimeter of the CHARM collaboration is able to discriminate electromagnetic from hadronic showers, induced by neutrino interactions. Using this feature from a sample of 1,450,000 interactions, obtained during the wide-band antineutrino exposures of 1979 and 1980 72 ± 16 events have been extracted that can be attributed to neutrino electron interactions. This leads to a cross-section for the pure leptonic weak neutral current process of antineutrino-electron elastic scattering of $(1.70 \pm .33) \times 10^{-42} E_\nu$ (cm²/GeV).

*) 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.

Tuesday 20 October

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs - Auditorium

"Use of a Liquid Argon Calorimeter to Investigate the Production of High Transverse Momentum Prompt Photons at Fermilab"

(Fermilab-Michigan State-Minnesota-Northeastern-Rochester Collaboration)

by Alan M. Jonckheere / Fermilab

Wednesday 21 October

ISR COMMITTEE

• OPEN SESSION

at 09.30 hrs - Council Chamber

1. Status of preparations for Experiment R 704; Charmonium Spectroscopy at the ISR using an Antiproton Beam and a Hydrogen Jet Target; M. Macri.

• CLOSED SESSION

at 10.30 hrs - Sixth Floor Conference Room (Administration Building)

Thursday 22 October

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs - Council Chamber

"Tests of Quantum Chromodynamics in Neutrino Interactions"

by G. Myatt / Oxford Univ.

POUR INFORMATION / FOR INFORMATION

Vendredi 16 Octobre

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)

"HRS : le dernier-né des grands détecteurs"

par J.P. Guillaud / LAPP

Présentation du dispositif expérimental constituant le spectromètre à haute résolution (HRS) qui vient très récemment d'être installé dans la zone d'intersection No.6 de PEP.

Renseignements complémentaires auprès de Ch. Baglin/CERN-EP, Tél. 4657, ou Laboratoire d'Annecy-le-Vieux, Tél. (023)23.32.45, int. 327.

TRAINING AND *EDUCATION* *ENSEIGNEMENT*

Jeudi 15 Octobre

ENSEIGNEMENT GENERAL (Tél. 2844)

13h00/13h30 - Amphithéâtre

'Science pour Tous'

par R. Carreras

October 20, 21, 22, 23, 27, 28, 29, 30

ACADEMIC TRAINING (Tel. 2844)

at 11.00 hrs - Auditorium

'Degenerate Fermi matter in the Universe'

by R. Ruffini / University of Rome

Astrophysical applications of matter obeying Fermi statistics are going to be presented. First the case of the degenerate matter in neutron stars is going to be discussed with special attention to the latter observational constraints on the values of the masses and the surface temperatures of neutron stars obtained from X-ray astronomy. The implications of these observations for equations of states of neutron star matter and for a, possibly, different outcome of the process of gravitational collapse are going to be considered. The implications of degenerate matter, or almost degenerate matter in cosmology, is going to be considered within the framework given by George Gamow. Special attention is going to be focussed on the possible existence of massive

neutrinos in nature and on their consequences on the process of galaxy formation and on the stability of galaxies.

Bibliography : 'Blackholes, gravitational waves and cosmology'

by M. Rees, R. Ruffini, J.A. Wheeler
(Gordon and Breach, N.Y., London, 1974)

'Physics and astrophysics of neutron stars and black-holes'

by R. Giacconi and R. Ruffini (North Holland, Amsterdam, 1978)

In addition, ample references will be given to original articles.

Fridays, October 23 and 30 November 6, 13 and 20

ACADEMIC TRAINING (Tel. 2844)

10h30/12h30 - DD Auditorium
(Building 31, 3rd floor)

'Digital signal processing'

by M. Kunt / EPF, Lausanne

These lectures will present basic methods of digital signal processing. Digital signals and systems will be introduced along with their analysis and synthesis tools such as Fourier transform, correlation, convolution, z transform. The discrete Fourier transform will be studied in detail with its pitfalls, major properties and with its relationship to other transformations. The fast Fourier transform will be described. Digital filtering techniques and digital filters will be presented in detail. Finally, an overview of power spectrum estimation will be given.

Bibliography : 'Traitement numérique des signaux'
by M. Kunt (Editions Georgie, 1980).

INFORMATIONS GENERALES GENERAL INFORMATION

VACCINATION CONTRE LA GRIPPE

Les personnes inscrites pourront se présenter à l'infirmerie (Bât.57) entre 9h00 et 16h00 dans l'ordre alphabétique de leur nom comme suit :

A B		15.10.81
C D		16.10.81
E F G		19.10.81
H I J K		20.10.81

Service médical / 3802
Medical Service

CONCERT DU CERN

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VENDREDI 16 OCTOBRE 1981 A 20H

AMPHITHEÂTRE

"Baroque Strings de Zürich"

Solistes : Akira SHIRAO, piccolo
Frank GASSMANN, violon
Heinz RELSTAB, violon

Au programme, des œuvres de :
G.B. Pergolesi, T. Albinoni
A. Vivaldi, J.S. Bach

Réservation : G. Adam, Tél. 4813
de 14h00 à 16h00.

Prix des places : Frs 9.-

DISPARU

- Un transpalette "Aimsa" rouge, No. 804, marqué KUMMER, a disparu du hall de montage SPS. Toute personne pouvant donner des renseignements est priée de contacter H. Kummer / Tél. 5672.

- La personne ayant emprunté le dictionnaire "Petit Larousse" au Bâtiment 54, Bureau 1-033, est priée de le restituer.

OBJETS TROUVES au cours du mois de septembre.
Les réclamer au Service de Secours et de Sécurité, Bât.65

Le 9.9, une montre de femme, trouvée entre les Bâtiments 28 et 31.
Le 11.9, une somme d'argent suisse, trouvée vers le Bâtiment 193.
Le 17.9, une somme d'argent suisse, trouvée au Bâtiment 275.
Le 18.9, un bouchon de réservoir d'essence, trouvé devant le Bâtiment 13.
Le 25.9, un cahier de notes, trouvé au 3ème étage du Bâtiment 4.

VACCINATION AGAINST INFLUENZA

All members of the personnel who have registered are requested to present themselves at the infirmary (Bldg.57) between 9 a.m. and 4 p.m. We will proceed in alphabetical order :

L M		21.10.81
N O P		22.10.81
Q R S		23.10.81
T U V W X Y Z		24.10.81