

APPRENTISSAGE - Rappel

Comme chaque année, le CERN engagera 2 ou 3 apprentis dans chacun des métiers suivants :

- "Employé de laboratoire en physique" (durée: 3 ans)
- "Mécanicien-Electronicien" (durée: 4 ans)

Début de l'apprentissage : lundi 22 août 1977

Date limite de réception des candidatures :
25 mars 1977

L'apprentissage s'effectue selon la législation genevoise et permet l'obtention du certificat fédéral de capacité.

Conditions minima : - résider en Suisse ou en zone frontalière
- avoir accompli la scolarité obligatoire (15 ans révolus)

Les personnes ayant des enfants intéressés par l'un ou l'autre de ces métiers sont priées de se mettre en rapport le plus tôt possible avec le Service de l'Enseignement (tél. 2844-2460), afin d'obtenir tous les renseignements nécessaires ainsi que la formule de candidature.

M. Viader (2844)

SEMINARS SEMINAIRES

MONDAY 21 MARCH

EP SEMINAR

at 10.00 hrs - EF Conference Room
(Lab.13-2-005)

"Preliminary Results from Two Fermilab Experiments : Neutrino Induced Dimuon Events with 2-Plane EMI (Exp. 460) and Search for High Mass Bosons in Digamma Final States (Exp. 95)"

by C.T. Murphy / Fermilab

Abstract : In a rapid search of Exp. 460 film exposed in December 1976, 9 examples of dimuon production by neutrinos have been found. The technique involves searching for 4-fold coincidences in 2-plane EMI in which an extra 3.6 collision lengths of absorber have been added. Using a two-arm lead glass detector operating near 90° in the centre of mass (Exp. 95), the digamma mass spectrum has been measured up to 6 GeV/c², in addition to π^0 , π^+ , and μ^0 inclusive spectra and the $\pi^0 \pi^0$ mass spectrum.

ISR SEMINAR

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

"The Evolution of the ISR Computer Control System"

by R. Keyser / CERN-ISR

CERN NUCLEAR PHYSICS SEMINAR

at 16.00 hrs - Theory Conference Room

"Central Collisions of Heavy Ions at High Energies - A Theory for Inclusive Proton and Pion Spectra"

by J. Hüfner / Heidelberg

Abstract : Collisions of nuclei by nuclei are studied at energies between 250 MeV/nucleon and 2.1 GeV/nucleon. Double differential cross-sections for pions and protons are calculated and compared with experiment. The underlying model is derived from Glauber theory. The question of thermalization is discussed.

TUESDAY 22 MARCH

SC COMMITTEE

- Open Session

at 09.30 hrs - Council Chamber

Agenda :

1. Introductory remarks by L. Van Hove.
2. Proposals :
 - (a) "Studies of Binary Fission of Medium-Heavy Nuclei induced by 600 MeV Protons" Lund-Oslo Collaboration (CERN/SCC/77-2) (B. Schröder);
 - (b) " π Backward Scattering on Nuclei" Omicron Collaboration (CERN/SCC/77-4) (G. Dellacasa).
3. Report on ISOLDE Programme (R. Klapisch).
4. Status reports on experiments in progress.

- Closed Session

at 14.30 hrs - Conference Room 6th floor
(Administration Building).

CERN COLLOQUIUM

at 16.30 hrs - Auditorium

"The Young Einstein : Thermodynamics and the Light-Quanta"

by J. Mehra / Instituts Internationaux de Physique et de Chimie (Solvay), Bruxelles

1st lecture.

Abstract : Albert Einstein achieved greater fame and received more public adulation than perhaps any other scientist in history. By common consensus he was the greatest physicist since Newton. Yet his work and personality are shrouded in legend. During the last twenty years of his life, Einstein presented the image of a second Isaiah, a sage above all conflict. Yet the young Einstein, whose contributions to the quantum and relativity theories became cornerstones of modern physics, addressed himself to the most controversial questions of his day. He was a man of almost demonic energy, sure of his mission, secure in his self-esteem. It is of interest to examine the circumstances of Einstein's intellectual development and the roots of his scientific work.

In the first lecture on "The Young Einstein", I shall treat Einstein's work on statistical thermodynamics which served as the basis of his discovery of the light quantum. In the second, I shall discuss the origins of special relativity theory : the contributions of Lorentz, Poincaré, Einstein and Minkowski.

WEDNESDAY 23 MARCH

ISR COMMITTEE

- Open Session

at 09.30 hrs - Council Chamber

1. Information from the Research Director-General, L. Van Hove.
2. Status report by J. Favier on Experiment R 401, Isobar Production at ISR Energies, (CERN-Hamburg-Orsay-Vienna Collaboration).

- Closed Session

at 11.00 hrs - Conference Room, 6th floor (Administration Building)

to continue in the afternoon .

CERN COLLOQUIUM

at 11.00 hrs - Auditorium

"The Young Einstein : Origins of Special Relativity Theory"

by J. Mehra / Instituts Internationaux de Physique et de Chimie (Solvay), Bruxelles

2nd lecture

Abstract : See under 1st lecture given on Tuesday 22 March.

SPS SEMINAR

at 16.30 hrs - SPS Auditorium

"Longitudinal Phenomena in the SPS"

by D. Boussard

Abstract : The behaviour of the SPS beam in longitudinal phase space is characterized by two kinds of problems :
i) the debunching-rebunching process at injection is associated with debunched beam instabilities (e.g. self bunching due to the impedance of the r.f. cavities on their fundamental mode, microwave instabilities induced by the vacuum chamber elements);
ii) coupled bunch instabilities occur at high energy, most of them being driven by the r.f. cavities themselves.

A review of these problems will be presented, together with several cures which have already been tested on the machine.

THURSDAY 24 MARCH

THEORETICAL SEMINAR

at 14.00 hrs - Theory Conference Room

"Infra-Red Problems on Non-Abelian Gauge Theories"

by T. Kinoshita / Cornell University

Abstract : We have developed a general diagrammatic method for precisely determining the power of infra-red logarithms for diagrams of arbitrary order in non-Abelian gauge theories. This method is applied to the study of the structure of leading infra-red divergences of the S matrix elements for non-exceptional momentum configurations for an arbitrary number of massive quarks and colour singlet external sources. It is found that the sum of all these divergences satisfies a simple differential equation with respect to the space-time dimensions as an infra-red cut-off.

CERN COLLOQUIUM

at 16.30 hrs - Auditorium

"The Birth of Wave Mechanics"

by J. Mehra / Instituts Internationaux de Physique et de Chimie (Solvay), Bruxelles

3rd lecture

Abstract : In fall 1925 Born, Heisenberg and Jordan and, independently, Dirac, formulated consistent algebraic schemes of quantum mechanics. I discussed the history of this development in the Werner Heisenberg Memorial Lecture on "The Birth of Quantum Mechanics", CERN Colloquium, 30 March 1976.

Also in fall 1925 Erwin Schrödinger, then at the University of Zurich, was both personally and scientifically, very discontent. The "abstract" and "transcendental" algebra of matrix mechanics gave him the creeps. The ideas contained in Louis de Broglie's thesis (Paris, November 1924), which Einstein had blessed by making use in his quantum theory of an ideal gas (January 1925), became the starting point of Schrödinger's work on a new atomic mechanics. In a series of communications early in 1926, published in the Annalen der Physik, he developed the theory of wave mechanics. I shall discuss Schrödinger's scientific background and attempt to show that, at a given historical moment, he was uniquely qualified to do what he actually did.

FRIDAY 25 MARCH

ESO ASTROPHYSICS SEMINAR

at 11.30 hrs - DD Conference Room (Bldg.31 - 3rd floor)

"Will the Universe Expand Forever - a Problem in Applied Nuclear and Particle Physics"

by David N. Schramm / Univ. of Chicago

MONDAY 28 MARCH

BEBC USERS' GROUP

at 13.45 hrs - Council Chamber

"Joint BUG and GGM Meeting"

1. Report on EPI Working Party.
2. Physics from BEBC Experiment T 243 12 GeV/c pp (Y. Goldschmidt-Clermont).
3. Progress Report : SPS, BEBC, Beams.
4. SPSC Report.
5. EMI Running and Analysis of Data.
6. Neutrino Beam Running and Monitoring.
7. BEBC Experiments in Progress.
8. Gargamelle.

(Please note that the Gargamelle Users' Group will join the meeting part-time.)

CERN NUCLEAR PHYSICS SEMINAR

at 16.00 hrs - Theory Conference Room

"Effects of Absorption on π -Nuclear Scattering"

by A. Rinat / Weizmann Inst.