

SEMINARS SEMINAIRES

Monday 6 July

EP SEMINAR

at 16.30 hrs – Auditorium

Antiproton-atom collisions at LEAR

by K. ELSENER / CERN-EP

The first atomic collision experiments with 0.5 to 4 MeV antiprotons gave a surprising result : the double ionization cross-section for antiprotons on helium is twice as high as that for protons. Cross-sections for ion-atom collisions scale approximately with the square of the projectile charge, which would imply identical cross-sections for antiprotons and protons. Small deviations from this law in the order of a percent have been found previously, for example in the range of π^+ and π^- . The new effect observed at LEAR, two orders of magnitude larger, and related results with Ne and Ar targets, will be discussed together with recent theoretical attempts at an explanation. Plans for future atomic collision studies with antiprotons are outlined.

Tuesday 7 July

SPECIAL SEMINAR

LEP Auditorium, bldg 30, 7th floor

Seminar on the CERN-LAL Collaboration on the construction of the LEP Injector Linacs LIL (Closing Session of the Collaboration)

09.00 Introduction (F. Dupont, LAL)

09.15 The Choice of Parameters (K. Hübner)

09.30 Les Systèmes HF haute puissance (P. Brunet, LAL)

09.55 Les Sections accélératrices (Y. Dabin, LAL)

10.00 The Construction (D. Blechschmidt)

10.20 The Performance (D.J. Warner)

Tuesday 7 July

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Progress report on SLC

by W. KOZANECKI / SLAC

The Stanford Linear Collider (SLC) project arose from the dual purpose of exploring the accelerator Physics and Technology for future linear colliders, and of providing early e^+e^- collisions for probing physics at the Z^0 pole. After a brief reminder of the machine architecture, we shall review both early and ultimate performance goals, and assess the progress to date on each subsystem : injector, damping rings, linac, positron source, arcs, and

final focus system. Commissioning experience and outlook will be illustrated with a few topics in 'accelerator physics for pedestrians' : energy and energy spread stabilization, transverse wakefield instabilities, beam-beam finding, spot size measurement, luminosity optimization. With first collisions expected this summer, we will then turn to the detectors. The SLD experiment, designed to match the ultimate performance of the accelerator, is currently being assembled in the collider hall, and is scheduled for completion in 1989. Early physics, however, will be explored by the considerably upgraded Mark II experiment. This seminar will conclude with a brief discussion of the short, medium and long term physics outlook at the SLC.

* Tea and coffee will be provided at 16.00 hrs.

Mercredi 8 Juillet

PRESENTATION TECHNIQUE

de 9.30 à 12.00 h et de 14.00 à 16.00 h

bât. 864, 1er étage, aile D

KONTRON ELECTRONIC AG (CH) propose un exposé sur la nouvelle version 2.0 de P-CAD un logiciel pour la CAE avec la solution totale du dessin schématique au circuit imprimé, avec les possibilités de développement pour la logique programmable (PLD), simulation logique et simulation analogique.

09.30-12.00 Présentation du logiciel CUPL par Renaud MATTHIEU / P-CAD Bruxelles. Discussion et appui pour les utilisateurs de P-CAD-CAE.

14.00-16.30 Suite : discussion et appui pour les utilisateurs de P-CAD-PCB.

Langue : français

Renseignements : M. Diraison / FI / 4585.

Wednesday 8 July

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Unified theories of nuclear forces in the 1930s

by Laurie M. BROWN / Northwestern University, Evanston, IL, USA

To describe matter, especially nuclear matter, in terms of a minimal set of basic objects interacting through unified fundamental forces was as urgent an agenda for physicists in the 1930s as it is today. Three theories will be compared : the electron-proton model, the Fermi-field model, and the Yukawa meson theory. In these earlier theories, unification was premature and diversification was needed.