

SEMINARS SEMINAIRES

Monday 19 July

PPE SEMINAR

at 16.30 hrs – Auditorium

CCFR Results on neutrino scattering at the Tevatron

by Wesley H. SMITH / University of Wisconsin

Results are presented from deep inelastic interactions in neutrino-nucleon scattering at the CCFR neutrino detector in the Fermilab Tevatron quad-triplet neutrino beam. The structure function data sample consists of 1,000,000 neutrino-induced and 165,000 antineutrino-induced charged-current events (after cuts). The non-singlet QCD evolution is compared to xF_3 to determine the value of $\Lambda_{\overline{MS}}$ with 50 MeV accuracy, and the combined non-singlet and singlet evolution is used to address the question of the shape of the gluon distribution. A sample of 5030 neutrino and 1060 antineutrino induced opposite sign dimuon events with $30 < E_\nu < 600$ GeV allows the first next-to-leading-order extraction of the charm quark mass parameter, the nucleon strangeness content, the x dependence and the scaling behavior of the strange quark distribution function and a measurement of the CKM matrix element V_{cd} . The ratio of charged-current to neutral-current deep inelastic interactions is used to make a high-precision measurement of the weak mixing angle. This result represents the most precise measurement, with the highest statistics and mean neutrino energy, from neutrino-nucleon scattering experiments to date.

Tuesday 20 July

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Selected highlights of DZero

by Bernard G. POPE / Michigan State University

The DZero detector has just finished its first run at the Fermilab collider. The status of several analyses will be reported and some preliminary results presented. The emphasis will be on QCD studies but the Top search and Electroweak measurements will also be discussed.

* Tea & coffee will be served at 16.00 hrs.

Wednesday 21 July

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Heavy quark symmetry

by M. NEUBERT / SLAC

New symmetries of the strong interactions are operative in hadronic systems when a very heavy quark interacts with light quarks and gluons. They help to remove much of the model dependence in the theoretical description of semileptonic weak decays of hadrons containing a heavy quark. I will discuss the underlying physical ideas of heavy

quark symmetry and the formalism of heavy quark effective theory, which allows a systematic expansion of decay amplitudes in powers of $1/m$. The prospects of a high precision, model-independent extraction of V_{cb} from semileptonic B-meson decays are analyzed.

Thursday 22 July

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

On the experimental program of the 600 GeV proton accelerator (UNK-1)

by Alexandre ZAITSEV / IHEP, Protvino, Russia

The 600 GeV proton accelerator (UNK-1) is being constructed at IHEP, Protvino, Serpukhov. Its commissioning is expected during 1997. With its 6×10^{14} circulating protons this high-intensity machine will provide good perspectives for fixed-target accelerator physics: neutrino, muon scattering, hadron spectroscopy, etc. It will also provide a variety of test beams needed for LHC, SSC and other colliders. Possible experiments at this machine are reviewed.

* Tea & coffee will be served at 16.00 hrs.

Friday 23 July *

SPECIAL COLLOQUIUM

at 14.30 hrs* – Auditorium

Overview of the International Thermonuclear Experimental Reactor

by Paul-Henri REBUT / Director ITER-EDA,
San Diego, USA

The International Thermonuclear Experimental Reactor (ITER) Project is a multi-phased project, presently proceeding under the auspices of the International Atomic Energy Agency according to the terms of a four-Party agreement between the European Atomic Energy Community, the Government of Japan, the Government of the United States, and the Government of the Russian Federation ("the Parties"). The ITER Project is based on the tokamak, a Russian invention. It has the objective of demonstrating the scientific and technological feasibility of fusion energy of energy production. During extended performance operation the ITER will be capable of producing an amount of heat comparable to a large scale electric generating plant (1000 to 3000 MW_{th}). The ITER organization and the ITER design, including components and technologies, will be described.

Preceded by an introduction on
"The European Fusion Programme"
by Charles MAISONNIER, Director
"Fusion Programme" DG XII - CEC, Brussels

* Please note unusual day and time

Thursday 29 July

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium

Final results on ϵ'/ϵ from the NA31 experiment

by Arthur C. SCHAFFER / LAL Orsay