



Carl Tham, Ministre suédois de l'éducation et de la science, en compagnie du Directeur Général C.H. Llewellyn Smith, lors de sa visite au CERN les 24 et 25 mars

Carl Tham, Minister of Education and Science, Sweden, hosted by the Director-General C.H. Llewellyn Smith on his visit to CERN on 24 and 25 March

SEMINARS SEMINAIRES

Pour de plus amples informations, prière de consulter
For full information on these seminars, please see
<http://wwwas.cern.ch/Bulletin/Seminars/current.html>

Tuesday 1 April

DUALITY WORKSHOP

at 14.00 hrs – TH Conference Room

D1-instanton calculation and type I-heterotic Duality

by Elias KIRITSIS / CERN

Friday 4 April

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

The interest in B physics at LHC

by Ahmed ALI / DESY

We discuss the present profile of B physics and anticipated improvements at the B-factories, HERA-B and LHC. In doing this, we emphasize the role of precision measurements expected to be made in a number of rare B decays,

B_s – B -bar $_s$ mixings, and CP-violating asymmetries in the precise determination of the CKM matrix elements. In particular, experiments at LHC will provide a quantitative test of the CKM paradigm for CP violation in terms of the unitarity triangle(s) and allow searches for new physics in flavour-changing neutral current interactions.

Monday 7 April

PPE SEMINAR

at 16.30 hrs – Auditorium*

A measurement of $|V_{cb}|$ using

B^0 -bar $\rightarrow D^{*+} l^- \nu_l$ -bar decays

by Elisabetta BARBERIO / CERN-PPE

We report on a measurement of the Cabibbo-Kobayashi-Maskawa matrix element $|V_{cb}|$, from approximately 4.2 million hadronic Z^0 decays recorded with the OPAL detec-

tor. The differential decay width of $B^0\text{-bar} \rightarrow D^{*+} \Gamma^- \nu\text{-bar}$ is measured as a function of the kinematical variable w , which is a measure of the recoil of the D^{*+} meson in the $B^0\text{-bar}$ rest frame. The product of the matrix element $|V_{cb}|$ and the normalization of the decay form factor at the point of zero recoil of the D^{*+} , $F(w=1)$, is determined from a fit to the differential decay width distribution. Using a quadratic parametrization of $F(w)$, we measure $F(1) |V_{cb}|$. Using Heavy Quark Effective Theory calculations for the decay form factor at zero recoil of the D^{*+} meson in the $B^0\text{-bar}$ rest frame, we derive $|V_{cb}|$ and the slope of the form factor at zero recoil.

* Tea & coffee will be served at 16.00 hrs.

Mercredi 9 avril

PRÉSENTATION TECHNIQUE

09.00–17.00hrs – Bus de démonstration, Parking bât. 252

Instruments de mesures dimensionnelles

par D. KÜNDIG / TESA Brown&Sharpe SA Renens

Exposition et démonstration d'un assortiment de produits et nouveautés dans la technique de mesure dimensionnelle et de déplacement.

Exemples: Mesure de pièces simples ou complexes de dimensions pouvant aller jusqu'à plusieurs mètres – Capteurs de petits déplacements avec une précision de quelques centièmes du μm – Systèmes d'acquisition, de traitement ou d'impression des valeurs mesurées.

Langues: français, anglais, allemand

Information : L. Abel / SPL / 79561

Wednesday 9 April

PS SEMINAR

at 11.00 hrs – PS Auditorium

Filtering High Order Modes

by Vittorio VACCARO, University of Napoli

High order modes (HOM) are a severe limitation for machines such as linear colliders or B-factories. In a choked mode cavity, the HOM excited by particle bunches can conceptually leave the cavity without affecting the following bunches. The theoretical analysis of such a device will be presented together with experimental results obtained with a coaxial probe.

Organiser: B. Autin/PS

Thursday 10 April

SL SEMINAR

at 16.00 hrs – SL Auditorium, Prévessin, bldg. 864

Microwave instability in the SPS: causes and cures

by Elena SHAPOSHNIKOVA / CERN

The single bunch intensity of the proton beam in the SPS is limited by the longitudinal microwave instability. This instability, first observed in the SPS in 1977, is not harmful for present operation due to the relatively low (10^{10}) bunch intensity. However the LHC beam will have 10^{11} particles per bunch and the threshold of this instability becomes one of the critical factors. The main sources of impedance causing this instability have been found from measurements of the spectrum of unstable single bunches.

Sufficiently long bunches injected at 26 GeV with RF off allow the detailed structure of the SPS longitudinal impedance to be observed over a wide frequency range (100 MHz – 4 GHz). Dominant peaks have been identified with various elements in the ring – some previously unrecognised as important sources. Ways of reducing these impedances together with other possible cures for the instability are under study.

* Coffee and tea will be served at 15:30 in front of the auditorium

Friday 11 April

LHC TECHNICAL SEMINAR

at 14.15 hrs – LHC Auditorium, bldg 30 (7th fl.)

Real-Time Control Systems at the JET Fusion Project

by Quentin KING / CODAS, JET Joint Undertaking

For the LHC, real-time control of variables including betatron tunes and chromaticity will be required, and work on prototyping LHC control systems has already been started. At another large instrument for research, the Joint European Torus (JET), real-time control of the power supplied to the plasma was implemented recently. JET has used a variety of real-time control systems since it began operations in 1983, however, until 1994 all three plasma heating systems relied on pre-programmed waveforms. This limited the reproducibility of plasma conditions and made exploration of effects near stability limits difficult and time consuming. Then in 1994 the real-time power control (RTPC) project was started and now the power supplied to the plasma can be controlled in response to over one hundred diagnostic signals. In this multi-media presentation, the systems will be examined to see how they collaborate to provide the physicists with an homogeneous environment within which to design complex experiments.

* Please note unusual day and time.