

COMMUNICATIONS OFFICIELLES

OFFICIAL NEWS

Les membres du personnel sont censés avoir pris connaissance des communications officielles ci-après.

La reproduction même partielle de ces informations par des personnes ou des institutions externes à l'Organisation exige l'approbation préalable de la Direction du CERN.

DISPENSE DU VISA FRANCAIS POUR LES TITULAIRES D'ATTESTATION DE FONCTIONS FRANCAISE « EF »

Le Ministère français des Affaires étrangères a informé l'Organisation que les membres du personnel résidant en Suisse et titulaires d'une Attestation de fonctions « EF » sont dispensés de l'obligation du visa français, lorsqu'ils circulent temporairement en France DANS LE CADRE DU TRAVAIL AU CERN, à condition d'être munis, lors du passage de la frontière, de leur Attestation de fonctions et de leur passeport national en cours de validité.

Service des Relations avec les Pays-hôtes
<http://www.cern.ch/rerelations/>
Tél. 72848

Members of the personnel shall be deemed to have taken note of the news under this heading.

Reproduction of all or part of this information by persons or institutions external to the Organization requires the prior approval of the CERN management.

CARRYING OF FRENCH VISAS FOR HOLDERS OF CATEGORY "EF" FRENCH ATTESTATIONS DE FONCTIONS

The French Ministry of Foreign Affairs has informed the Organization that members of the personnel resident in Switzerland and holding Category "EF" French Attestations de fonctions are not obliged to be in possession of French visas when temporarily travelling through France ON OFFICIAL CERN BUSINESS, provided they are carrying the valid Attestation and a valid national passport with them.

Relations with the Host States Service
[http://www.cern.ch/relations/](http://www.cern.ch/rerelations/)
Tel. 72848

SEMINARS SEMINAIRES

Vous pouvez aussi consulter
For information on these seminars, please see
<http://Bulletin.cern.ch/Seminars/>

Tuesday 26 October

DUALITY WORKSHOP

at 14.00 hrs – TH Conference Room, bldg 4

Aspects of D1/D5 system: Hawking radiation, black hole fragmentation and non-commutative geometry

by Gautam MANDAL / CERN

I will discuss some aspects of the D1/D5 system, the five-dimensional black hole and the associated superconformal field theory (SCFT) in 2 dimensions. We will briefly review how such a SCFT arises from the gauge theory of open strings on the D-brane system, leading to a target space which is an orbifold. The resulting twisted sectors lead to a different "effective string" picture than initially proposed and removes earlier discrepancies in Hawking radiation rates between brane computations and supergravity. We will discuss the issue of marginal decay and fragmentation of the five-dimensional black holes in the absence of moduli. We will discuss how to construct true bound states (stable black holes), both in terms of supergravity and gauge theory. The gauge theory corresponding to the stable D1/D5 system turns out to be non-commutative.

Tuesday 26 October

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium, bldg 500*

**Limits on Neutrino Oscillations
from the CHOOZ experiment**

by Alessandro BALDINI / INFN Pisa

We present new results based on the entire data sample of the CHOOZ experiment, located near two nuclear reactors in the north of France. No evidence for neutrino oscillations was found in the electron antineutrino disappearance mode for the parameter region given by approximately $\delta m^2 > 7 \times 10^{-4} \text{ eV}^2$ for maximum mixing, and $\sin^2 2\theta > 0.10$ for large values of the squared mass difference. Lower-sensitivity results, based only on the comparison of the positron spectra from the two different-distance nuclear reactors, are also presented. These are independent of the absolute normalization of the antineutrino flux, the cross section, the number of target protons and the detector efficiencies. We will also discuss the future prospects for neutrino oscillation experiments at nuclear reactors.

Organiser : Jasper KIRKBY / EP Division
** Tea & coffee will be served at 16.00 hrs.*

Wednesday 27 October

CERN HEAVY ION FORUM

at 14 00 hrs – Conference Room, bldg 160/1-009

Event by Event Analysis and Entropy of Multiparticle Systems

by Andrzej BIALAS / Jagellonian U. , Cracow

The event coincidence method of measuring the entropy of a statistical system, proposed some time ago by Ma, is generalized to include systems out of equilibrium. The physical interpretation of coincidence probabilities is discussed and their relation to entropy demonstrated.

The method can be used to investigate multiparticle states produced in high-energy collisions.

Organisers: Yiota Foka and Ulrich Heinz
<http://home.cern.ch/a/alicedoc/www/chic/>

Thursday 28 October

THETA/PHI MEETING

at 14.00 hrs – TH Conference Room

Non-supersymmetric branes

by Yaron OZ / CERN

We will start a series of informal talks/discussions on non-supersymmetric brane configurations. The aim is to bring together the phenomenology and formal groups. The target is to initiate studies of non-supersymmetric gauge theories, nonsupersymmetric black holes and model building using branes.

Friday 29 October

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room, bldg 4

Analysis of ε'/ε in the $1/N_c$ approach

by T. HAMBYE / INFN, Frascati

A new analysis of the ratio ε'/ε which measures the direct CP-violation in $K \rightarrow \pi\pi$ decays is presented. The general problems encountered in the calculation of this ratio in the standard model are discussed, in particular in the framework of the $1/N_c$ approach we use. Our result indicates that at the level of the $1/N_c$ corrections a $\Delta I = 1/2$ enhancement is operative for the operator Q_6 similar to the ones of Q_1 and Q_2 which dominates the CP conserving amplitude. This enhances ε'/ε and can bring the standard model prediction close to the measured value for central values of the parameters.

Tuesday 2 November*

PS SEMINAR

at 11.00 hrs – PS Auditorium, bldg 6/2-024

The C-Band Research & Development for a 500 GeV e^+e^- Linear Collider

by T. SHINTAKE / KEK, Japan

One of the options for the next generation of linear colliders relies on C-band RF systems.

4 years (1996-1999) of R&D at KEK on klystron, klystron modulator, RF pulse compressor and accelerating structure will be surveyed.

The second stage of R&D is planned for 2000-2003 and dedicated to economical mass-production, R&D on unreliable component such as thyatron switch and tests in an existing machine.

* Please note unusual date

Organiser: B. Autin/PS

Wednesday 3 November

PS SEMINAR

at 11.00 hrs – PS Auditorium, bldg 6/2-024

The CRYRING Facility

by Ö SKEPPSTEDT / Manne Siegbahn Laboratory

The CRYRING accelerator complex consists of low-energy ion-sources and of a storage ring equipped with an electron cooler. The ion-source is of EBIS-type and can deliver highly charged ions all over the periodic system. A similar source will be used as a charge breeder for REX at ISOLDE and may be of interest for LHC. The electron beam is used not only as a cooler but also as a target for studying collisions with atomic and molecular ions. It was recently upgraded with a super-conducting solenoid and a new electron gun so that it is adiabatically expanded by a factor of 100 and its transverse momentum spread is reduced by the same factor. The CRYRING facility will be described together with an overview of the current research in atomic and molecular physics. MSL involvement into CERN projects will also be addressed.

Organiser: B. Autin/PS

Thursday 4 November

SCIENCE & SOCIETY

at 16.30 hrs – Auditorium, bldg 500*

Reconstructing human evolution

by Luca CAVALLI-SFORZA / Genetics Departement, Stanford University

One can reconstruct human evolution using modern genetic data and models based on the mathematical theory of evolution and its four major factors : mutation, natural selection, statistical fluctuations in finite populations (random genetic drift), and migration. Archaeology gives some help on the major dates and events of the process. Chances of studying ancient DNA are very limited but there have been a few successful results. Studying DNA instead of proteins, as was done until a few years ago, and in particular the DNA of mitochondria and of the Y chromosome which are transmitted, respectively, by the maternal line and the paternal line, has greatly simplified the analysis. It is now possible to carry the analysis on individuals, while earlier studies were of necessity based on populations. Also the evolution of "culture" (i.e. what we learn from others), in particular that of languages, gives some help and can be greatly enlightened by genetic studies. Even though it is largely based on mechanisms of mutation and transmission quite different from the genetic ones, it has similar patterns.

Organiser : James Gillies / AS Division

* Tea & coffee will be served at 16.00 hrs.

LAPP – Laboratoire d'Annecy de physique des Particules
F74941 – Annecy-le-Vieux
Informations : Frédérique MARION, tél. 04 50 09 16 00

Friday 29 October

SEMINAR

at 14.00 hrs – LAPP Auditorium

**Indirect Measurement of the Vertex and
Angles of the Unitarity Triangle**

by Salvatore MELE / INFN, Napoli & CERN/EP

The knowledge of the elements of the Cabibbo Kobayashi Maskawa matrix is of fundamental importance in the Standard Model to understand the weak interactions among quarks and for the study of the origin of the violation of the CP symmetry. The latest experimental constraints on the value of the elements of the matrix are discussed together with a fit that allows the determination of the vertex and angles of the unitarity triangle, the customary way of defining the two less known parameters of the matrix. From this fit information are also derived on the value of some non perturbative QCD parameters, on the presence of CP violation in the Cabibbo Kobayashi Maskawa matrix and on the oscillation frequency of Bs mesons, still unknown.

**EDUCATION
SERVICES
EDUCATIFS**



Information sur les cours, dates et places disponibles sur WWW:
Information about the courses, dates and places available on WWW :
<http://www.cern.ch/Training/>

**MANAGEMENT & COMMUNICATION
MANAGEMENT & COMMUNICATION**

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STRESS MANAGEMENT

This two-day Management & Communication seminar focuses on identifying and managing stress in professional and personal contexts.

The seminar is open to everyone and will be offered in English and French.

The dates of the next sessions are as follows:

- French 15, 16 November 1999
- English 7, 8 February 2000.

LA GESTION DU STRESS

Ce séminaire de deux jours du programme de Management & Communication a pour objectif d'identifier les sources de stress pour mieux les gérer dans les contextes professionnels et personnels.

Ce séminaire proposé en anglais et en français est ouvert à tous.

Les dates des prochaines sessions sont :

- français 15, 16 novembre 1999
- anglais 7, 8 February 2000.