

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.

- **Les Statut et Règlement du Personnel** en vigueur depuis le 1er janvier 1996 ont été modifiés dans le domaine suivant avec effet au 1er juillet 1998 : *Extension de l'obligation de réserve et du régime des incompatibilités aux anciens membres du personnel*

Des exemplaires de cette mise à jour, ainsi que de celle annoncée au Bulletin 7/98 relative aux allocations de famille et pour enfant à charge, sont disponibles auprès des secrétariats de division.

N.B. Ces documents sont accessibles pour consultation sur le serveur Srv4_Home dans NOVELL via Apple Talk, volume PE Division Data Disk. Les fichiers Word se trouvent dans le dossier COM, sous-dossier Public.

Division du Personnel
Tél. 74128

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.

- **The Staff Rules and Regulations** in force since 1 January 1996 have been modified as from 1 July 1998 in the following area : *Extension of the obligation to exercise reserve and of the provisions relating to incompatible acts and activities to former members of the personnel*

Copies of this update, along with the update announced in Bulletin 7/98 concerning family and child allowances, are available in the Divisional Secretariats.

Note : These documents are available for consultation in the server SRV4_Home in NOVELL via Apple Talk, volume PE Division Data Disk. The Word files are available in the folder COM, folder Public.

Personnel Division
Tel. 74128

SEMINARS SEMINAIRES

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

Monday 20 July

SPECIAL SEMINAR

at 16.00 hrs – IT Auditorium, bld. 31/3-004

The State of the Internet in China

by Xing Li / Tsinghua University, China

Professor Xing Li is Director of the Chinese Education and Research Network at Tsinghua University in China. He will talk about the current state and the formidable task of connecting all of China's 10,765 universities.

Issues such as local infrastructure and regulation will also be touched upon. Statistics on the use and growth of the Internet in the general population show very interesting aspects which sometimes contrast with what we see in Western countries.

Monday 20 July

CERN EP SEMINAR

at 16.30 hrs – Auditorium, bld. 500*

Diffraction at HERA

by Stefan TAPPROGGE / CERN-EP

Diffraction forms an important aspect of strong interaction physics and is intimately related with the mysterious

"Pomeron". Although Regge Theory together with the concept of a Pomeron gives an efficient description of many soft processes, calculations from first principles (based on QCD being the theory of strong interactions) are missing. This talk summarises the variety of diffractive measurements done at HERA. These results can be grouped into three categories : (i) exclusive meson production, (ii) inclusive diffractive cross sections, and (iii) diffractive final state properties. The emphasis will be put on the relation between the different measurements and the information obtained about the dynamics and the partonic structure of diffractive processes together with results on the transition between soft and hard interactions.

Organiser : Fabiola Gianotti / CERN-EP

** Tea & coffee will be served at 16.00 hrs.*

Tuesday 21 July

DUALITY WORKSHOP

at 14.00 hrs – TH Conference Room, bld. 4

Aspects of holography at finite temperature

by J.L.F. BARBON / CERN-TH

Wednesday 22 July

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room, bld. 4

Wilson loops, confinement and baryons in large N gauge theories from supergravity

by J. SONNENSCHNIG / Tel Aviv University

We use the recently proposed supergravity approach to large N gauge theories to compute Wilson loops, energy of external baryon configurations and entropy of a variety of maximally supersymmetric and non-supersymmetric gauge theories at zero and finite temperature. Expected behaviour like the area law of non-supersymmetric Yang-Mills theory is observed, as well as certain less expected phenomena.

Wednesday 22 July*

IT TRAINING TUTORIAL

14.00-16.00 hrs – IT Auditorium, bld. 31/3-004

Introduction to Programming in Mathematica

by Raul RAMOS POLLAN / CERN-IT

Mathematica is a general system for technical computation. It supports numerical, symbolic, and graphical computation. It can be used both like a simple calculator, and as a full symbolic programming language with many powerful capabilities.

The present tutorial is aimed at giving you some insight into the organisation of the system and provide you with the basic knowledge to be able to begin exploiting its functionality. You will see how to work with it interactively and how to write your own programs. It is a starting point to anyone wanting to use it intensively or to people who just want to know what it is about. No previous knowledge is required although some familiarity with programming languages and environments would be very convenient.

* Please note the change of date. This tutorial was originally scheduled for July 21st.

Information: <http://wwwinfo.cern.ch/support/training>
Organisers: M.Marquina and R.Ramos /IT-User Support

Thursday 23 July

THURSDAY SEMINAR

at 14.00 hrs – TH Conference Room, bld. 4

Implications of the SuperKamiokande result on the nature of New Physics

by Jogesh PATI / University of Maryland

It is remarked that the SuperKamiokande (SK) discovery of ν_μ to ν_τ (or ν_χ)-oscillation, with a $\delta m^2 \approx 10^2 - 10^3 \text{ eV}^2$ and $\sin^2 2\theta > 0.8$, provides a clear need for the right-handed (RH) neutrinos. This in turn reinforces the ideas of the left-right symmetric gauge structure $SU(2)_L \times SU(2)_R$ as well as $SU(4)$ -colour, for which the RH neutrinos are a compelling feature. It is noted that by assuming (a) that B-L and $I_{3R'}$ contained in a string-derived $G(224) = SU(2)_L \times SU(2)_R \times SU(4)^c$ or $SO(10)$, break near the GUT-scale, as opposed to

an intermediate scale, (b) the see-saw mechanism, and (c) the $SU(4)$ -colour relation between the Dirac mass of the tau neutrino and m_{top} , one obtains a mass for ν_L^τ which is just about what is observed. This is assuming that the SK group is actually seeing $\nu_L^\mu - \nu_L^\tau$ (rather than $\nu_L^\mu - \nu_\chi$)-oscillation. Following a very recent work by Babu, Wilczek and myself, it is furthermore noted that by adopting familiar ideas of understanding Cabibbo-like mixing angles in the quark-sector, one can quite plausibly obtain a large $\nu_L^\mu - \nu_L^\tau$ oscillation angle, as observed, in spite of highly non-degenerate masses of the light neutrinos: e.g. with $m(\nu_L^\mu)/m(\nu_L^\tau) \approx 1/10 - 1/20$. Such non-degeneracy is of course natural to see-saw. In this case, $\nu_L^\mu - \nu_L^\tau$ oscillation can be relevant to the small angle MSW explanation of the solar neutrino-puzzle. Implications of the mass of ν_L^τ suggested by the SK result on proton decay are noted. Comments are made at the end on how the SuperKamiokande result supplements the LEP result in selecting out the route to higher unification.

*** This seminar is meant for an audience of both theorists and experimentalists. ***

Friday 24 July

IT TRAINING TUTORIAL

10.00-12.00 hrs – IT Auditorium, bld. 31/3-004

PAW for beginners

by Olivier COUET / CERN-IT

PAW (Physics Analysts Workstation) is a very popular CERN-written application designed to assist physicists in the analysis and presentation of their data. It provides interactive graphical presentation and statistical or mathematical analysis, working on objects familiar to physicists like histograms, event files (Ntuples), vectors, etc. The software is part of the CERN Program Library.

This tutorial will provide beginners with the basic understanding to start using and exploiting the system.

It requires no previous knowledge although some basic programming skills (especially a basic knowledge of the Fortran language) may be helpful.

Information: <http://wwwinfo.cern.ch/support/training>
Organisers: M.Marquina and R.Ramos /IT-User Support

Friday 24 July

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room, bld. 4

Two-loop power corrections in e^+e^- event shapes

by Gavin SALAM / INFN, Milano

The question of the predictability of $1/Q$ power corrections will be discussed. At one-loop, calculations are beset by ambiguities (numerical factors) related to the treatment of an effective gluon mass, and to the non-inclusive nature of event-shape observables. These problems can be resolved with a two-loop calculation and an adequate treatment of the perturbative/non-perturbative interplay, the ingredients of which will be presented.