

Comme la plupart des utilisateurs d'Internet de la planète, le CERN se voit confronté à une montée en flèche du trafic Web. Cette intensification a une incidence sensible sur la qualité du service (temps de réponse, perte de paquets) pour chacun, aussi bien les utilisateurs du Web que ceux d'autres réseaux (Telnet, X11). Malheureusement, adapter la capacité du réseau externe pour répondre à la demande afin de maintenir une qualité de service raisonnable pour notre communauté entraîne de très lourdes conséquences financières.

Il en résulte que le service Internet devient d'un emploi de plus en plus difficile pour les utilisateurs du CERN qui en ont un besoin vital.

Afin de se faire une idée précise du trafic du CERN et, dans la mesure du possible, de le limiter, il est fait usage d'outils complexes de surveillance depuis le deuxième semestre 1997. Ces outils ont permis à la Division Technologies de l'information de suivre le trafic Internet (p. ex. source, destination, protocole).

Les résultats préliminaires montrent clairement un abus des lignes onéreuses du CERN d'accès à Internet, notamment pour l'accès aux serveurs audio et vidéo en direct.

Nous tenons de ce fait à rappeler à chacun d'entre vous que les installations du CERN doivent normalement être utilisées à des fins professionnelles **UNIQUEMENT**.

Nous comptons sur votre compréhension pour nous aider à maintenir la qualité de l'accès du CERN à Internet.

RENOUVELLEMENT DES DOCUMENTS DE LEGITIMATION FRANÇAIS

Les membres du personnel et leur famille, détenteurs de *cartes spéciales françaises dont la validité expire au plus tard le 31 mars 1998*, sont priés de les faire prolonger.

En application des arrangements avec les autorités de police et de douane, seules des **photocopies certifiées par la Division du Personnel du CERN** seront acceptées lors d'éventuels contrôles. Les photocopies de vos cartes seront certifiées au bureau 33/1-025 lors de la remise de vos cartes.

Vous pouvez aussi envoyer sous enveloppe les cartes à prolonger à l'adresse interne suivante :

CARTES CH/FR – Division PE

Cependant, nous attirons votre attention sur le fait que : *si vos cartes ou celles des membres de votre famille sont périmées, ou si vous présentez une photocopie non certifiée, l'Organisation ne prend aucune responsabilité en cas de difficultés avec les autorités de douane ou de police.*

Division du Personnel
Tél. 79494-74474

PROLONGATION OF FRENCH LEGITIMATION DOCUMENTS

Members of the personnel and their families, holders of **French special cards due to expire on or before March 31, 1998**, should have them prolonged.

In agreement with customs and police authorities, only **photocopies certified by CERN Personnel Division** will be accepted should there be checks. Photocopies of your cards can be certified at office 33/1-025 when handing in your cards.

Cards to be prolonged can also be sent to the following address:

CARTES CH/FR – Division PE

However, we wish to draw your attention to the fact that : *If you are in possession of invalid cards, or if you present non-certified copies, the Organization will not take any responsibility in case of difficulties with the Police or the Customs authorities.*

Personnel Division
Tel. 79494 - 74474

SEMINARS SEMINAIRES

THE FALL '97 IT TRAINING PROGRAMME

First of all, we would like to thank everyone who is contributing to the success of the IT Training Tutorial Programme, both users and teachers. By the end of September we had received overall more than 1000 attendants.

The Programme we are preparing for this fall is targeting several areas of wide interest among the CERN User Community:

- The CERN MAIL Service: Recommendations, applications, tools...

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

- WWW Related Topics: HTML Language and Editors, Java...
 - Software Development Tools at CERN
- Please, check the Bulletin every week for detailed information about the dates and contents. Also, you can always access our WWW page for up to date information on the IT Training Tutorials:

<http://wwwinfo.cern.ch/support/training>

Miguel Marquina and Raul Ramos / IT User Support

Monday 27 October

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs * – TH Conference Room

How small can the light quark masses be?

by Laurent LELLOUCH / CERN

Some recent analyses of lattice predictions for meson spectra have yielded values for the strange quark mass m_s , and the isospin averaged mass, $\bar{m} = (m_u + m_d) / 2$, which are substantially lower than expected on the basis of prior sum rule calculations. These lower values raise the question: how small can the light quark masses be without contradicting experiment or QCD? I will attempt to answer this question by presenting a selection of rigorous lower bounds on $m_s + m_u$ and $\bar{m}$, based on the analyticity properties of two-point functions of local current operators and the positivity of the corresponding hadronic spectral functions, in a variety of parity and flavour channels.

* Please note unusual day

Monday 27 October

PPE SEMINAR

at 16.30 hrs – Auditorium*

The measurement of $\Gamma_{b\bar{b}} / \Gamma_{\text{had}}$ from DELPHI

by Gary BARKER / CERN-PPE Division

Using LEP1 data taken in 1994 and 1995, the DELPHI Collaboration has a preliminary measurement of $\Gamma_{b\bar{b}} / \Gamma_{\text{had}}$ which was submitted to the Jerusalem HEP'97 Conference. Use of the upgraded microvertex detector, installed in Spring 1994, together with an improved track search procedure has allowed the development of powerful new b-quark tags. The combination of these tags in a multivariate analysis is presented with particular emphasis on new features of the method compared to DELPHI publications on earlier data sets.

*Tea & coffee will be served at 16.00 hrs.

Tuesday 28 October

SPS AND PS EXPERIMENTS COMMITTEE

Open session

at 09.00 hrs – Auditorium

1. Atomic spectroscopy and collisions using slow antiprotons (ASACUSA Collaboration); SPSC 97-19/ P307: R.S. Hayano.
2. Status report from DIRAC [PS212] : L. Nemenov.

Closed session

after the open session, 6th floor Conference Room
to be continued on Wednesday 29 October, if necessary.

Tuesday 28 & Wednesday 29 October

ALTERA TECHNICAL SEMINAR/TRAINING SEI-ELBATEX AG

09.00–17.30 hrs – LHC Auditorium, bld. 30/7-018

During a two day seminar/training, SEI-ELBATEX will present the latest Altera devices and software tools. The training programme will focus on advanced design techniques to get optimum performance and utilization results using the MAX+PLUS II software and Altera devices. The detailed programme will be sent directly to the registered cae-user and is also available on the cern.cse newsgroup.

All EPLDS/FPGAS Designers are strongly encouraged to attend this presentation.

Organisers : P. Baehler / IT / 75016), S. Brobecker / IT / 78693

Language: English

Tuesday 28 October

TECHNICAL PRESENTATION

at 10.00 hrs – IT Auditorium, bld. 31/3-004-5

SUN MICROSYSTEMS UltraComputing Announcements

by René WALPEN & Jean-Luc BOCQUET / SUN (CH)

Highlighting today's announcement is the unveiling of a comprehensive line of powerful new systems, including the Sun Ultra 30 and Sun Ultra Enterprise 450 Server families.

The Ultra 30 workstation today becomes the fastest workstation in the industry. It outperforms the fastest 3D graphics and imaging systems from competition's top-performing 3D mechanical design machines.

The new UltraEnterprise server 450 systems target are technical users and others in computational-intense environments. The UltraComputing architecture boasts a number of technology firsts that allow users to meet the requirements for high-speed networking, collaborative computing and the use of complex multimedia data.

Sun also offers upgrade paths for new ULTRA systems.

- ULTRAcomputing products: ULTRA 30 Workstations product line, ULTRA Enterprise Server 450
- New Software announcements: Solaris 2.6
- Prices : General repricing info (Ultra 30 and 450, Memory, Storage, etc.), ULTRA Upgrades (Workstations and Servers)
- Demo Java 3D
- General Information.

Organiser : S. Cannon / IT / 75036

Tuesday 28 October

IT TRAINING TUTORIAL

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

Introduction to Java

by Nicole CREMEL / CERN-IT

JAVA is quite a new programming language which is still under development by Sun Microsystems and its derived software development group, JavaSoft. In a few words JAVA is described by its adepts as a simple, portable, fully Object-Oriented, distributed language, still containing high level features. One other particularity of JAVA is that it is very well integrated in the World Wide Web. For all these reasons, the JAVA language is becoming quickly very popular. This tutorial is only intended to give a very first approach of what is the JAVA programming language and an overview of what the Java Development environment consists of. This is a repeat of the tutorial given on last 19 August.

Tuesday 28 October

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Supersymmetry — what ? why ? when ?

by Gordon KANE / University of Michigan

After a very short review of the Standard Model of particle physics to make the talk self-contained, I will explain the

hypothetical symmetry of particle states and interactions called "supersymmetry", and describe the motivations that have led many particle physicists to work on it. A sympathetic observer can find several kinds of indirect evidence in recent years that nature may actually be supersymmetric. In addition, a few candidate events for superpartner production have been reported from Fermilab and LEP, with properties consistent with each other and with the indirect evidence. I will summarize some tests of whether superpartners are indeed being produced at existing facilities, and some of the implications for developing and testing the theory in the future. Finally I'll briefly discuss connecting the data from collider energies with Planck scale theory.

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

Wednesday 29 October

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Extracting supersymmetry-breaking effects from wave-function renormalization

by G.F. GIUDICE / CERN

I discuss how, in theories in which supersymmetry breaking is communicated by renormalizable perturbative interactions, it is possible to extract the soft terms for the observable fields from wave-function renormalization. All the information about soft terms is obtained from anomalous dimensions and beta functions, with no need to compute any Feynman diagram. This method greatly simplifies calculations which are rather involved if performed in terms of component fields. I show how this technique can be used to obtain new results of phenomenological importance.

Jeudi 30 octobre

PRÉSENTATION TECHNIQUE

09.00-17.00 hrs – bât. 13/3-005

Moteurs et technique d'entraînements

par R. MAUER / TH. ZÜRRER AG (CH)

Avec plus de 80 ans d'expérience Th. Zurrer AG/Antel AG vous propose des réducteurs de précision à vis sans fin à un ou plusieurs étages, réducteurs planétaires, réducteurs à engrenages, construction avec plateau pied ou flasque, réduction de 5 à 500 000:1.

Robustes ou compacts, les réducteurs sont flexibles et polyvalents pour des applications exigeantes.

Ils se combinent à des moteurs à courant alternatif ou continu, freins, tachygénérateurs, etc. Le système modulaire a la possibilité de s'adapter à tout type de moteur.

Technique d'entraînement entre 1,5 et 2000 Watts – avec précision, service et conseils.

Langues : français, allemand, anglais

Information : L. Abel / SPL-PS / 79561

Thursday 30 October

TECHNICAL PRESENTATION

09.00-11.30 hrs – bld 2/1-034

MAXIM Integrated Circuits

by U. ESCHMANN / MAXIM Integrated Products
USA (rep. Lee AG Zurich)

With a broad range of semiconductor processes (low-power CMOS as well as high-speed, 26 GHz ft Bipolar) MAXIM

offers high performance solutions for a wide variety of signal-processing, power supply, μ P-supervisory and interface problems.

The presentation will highlight high-speed Op Amps, Comparators, ADCs and RF-ASIC capabilities.

It will also cover design-techniques for DC-DC converters for input voltages from 1 ... 40 V and output currents up to 15 A.

Language: English, French

Information : L. Abel / SPL-PS / 79561

Thursday 30 October

THURSDAY SEMINAR

at 14.00 hrs – TH Conference Room

From quantum to elliptic algebras

by Paul SORBA / ENSLAPP Annecy and Lyon

We prove the relevance of the elliptic algebra $A_{qp}SL(2)_c$ in the construction of the classical and quantum q-deformed Virasoro algebra.

Thursday 30 October

LHC TECHNICAL SEMINAR

at 16.00 hrs – LHC Auditorium, bld. 30/7th floor

Beam-induced Electron Cloud in the LHC

by O. GRÖBNER / CERN-LHC & F. RUGGIERO / CERN-SL

Synchrotron radiation from proton bunches in the LHC creates photoelectrons at the beam screen wall. These photoelectrons are pulled toward the positively charged proton bunch and drift across the beam pipe between successive bunches. When they hit the opposite wall, they generate secondary electrons which can in turn be accelerated by the next bunch if they are slow enough to survive. We discuss recent measurements of several key parameters, such as photoelectron and secondary electron yield, surface reflectivity as well as analytic estimates and simulation results for the fast build-up of an electron cloud with potential implications for beam stability, heat load on the beam screen and for the beam screen design.

Friday 31 October

IT TRAINING TUTORIAL

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

Introduction to HTML: Language and CERN Recommendations

by Artur DA SILVA ROCHA / CERN-IT

For all people who are involved in creation of webpages a minimum knowledge of HTML as a text processing language is useful, and if it is only to understand other peoples pages (eg to imitate them).

This tutorial will enable you to create reasonably good webpages, which also comply with the CERN recommendations for the minimum content. The topics being addressed are:

- Basic concepts of HTML (structure <-> layout)
- Ten Tags and a Template: How to be productive with a minimum of knowledge and tools
- Avoiding mistakes (when the browser does not understand your page)
- The corporate image: A few remarks on CERN recommendations concerning the "style".

Friday 31 October

LHCC ELECTRONICS BOARD

Open Session

at 10.00 hrs – Auditorium

- 10.00–10.30 RD16 Status Report: A digital front-end and readout microsystem for calorimetry at LHC [FERMI Project] B. Lofstedt
- 10.30–11.00 RD19 Status Report: Development of hybrid and monolithic silicon micropattern detectors E. Heijne
- 11.00–11.30 RD27 Status Report: First-level trigger systems for LHC experiments N. Ellis

Friday 31 October

SL SEMINAR

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

3-D Simulation of Collective Effects in LEP

by Andreas WAGNER / CERN

Collective effects due to the impedance of structures along the vacuum chamber can limit the performance of accelerators.

In particular in LEP, transverse impedances are limiting single bunch currents in the vertical, but – to a somewhat lesser degree – also in the horizontal direction. Previous simulations have taken into account only a single transverse dimension.

The 3-D single-bunch tracking program TRISIM3D, was developed, based on its predecessors TRISIM, HERSIM and SIMTRAC. It allows for the effects of wake potentials in all 3 spatial dimensions. The program uses wake potential tables as input, which can be pre-calculated. The major non-axially symmetric contributors to the impedance of LEP were studied in detail using MAFIA, in particular the shielded bellows and the electrostatic separators. Results of 3-D simulations of LEP including the effects of these wake potentials will be presented.

**Coffee and tea will be served at 15.30 hrs in front of the auditorium*

Tuesday 4 November

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Results from the Neutrino Oscillation Search with CHORUS

by Juergen BRÜNNER / CERN-PPE

Mercredi 5 novembre

PRÉSENTATION TECHNIQUE "DÉMONSTRATION"

09.30-17.00 h – bât. 13/3-005

Les technologies dans le domaine de la mesure sans contact

par C. MOREAU / COTEC Applications (CH)

Langues : français, anglais

Information : L. Abel / SPL-PS / 79561

Wednesday 5 November

LHCC ELECTRONICS BOARD SEMINAR

at 11.00 hrs – Auditorium

Highlights of the LEB London Workshop on LHC electronics

by Peter SHARP / Rutherford Appleton Lab., Nick ELLIS / CERN-PPE & Mike LETHEREN / CERN-ECP

Wednesday 5 November

COMPUTING SEMINAR

at 16.00 hrs – IT Auditorium, bld. 31/3-005

Internet-based Design Project Coordination

by Charles J. PETRIE / Center for Design Research, Stanford University

Organiser : G.Folger / IT

Thursday 6 November

TECHNICAL PRESENTATION

at 11.00 hrs – LHC Auditorium, bld. 30-7-018

Polyimide films by Du Pont de Nemours

by Jim OCHSNER, Development Manager of KAPTON® at the Du Pont Plant at Bayport, TX, USA and G. Forster, Product Manager of HT films for Europe and Middle East in Bad, Hamburg, Germany

Thursday 6 November

SL SEMINAR

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

A CERN neutrino beam toward Gran Sasso

by Eberhard WEISSE / CERN-SL

Thursday 6 November

SCIENCE AND SOCIETY

at 16.30 hrs – Auditorium

Nonsense, Nonscience, and Science – from Creationism to Aliens

by Lawrence KRAUSS / Ambrose Swasey Professor of Physics, Case Western Reserve University, Michigan

Friday* 7 November

CERN COLLOQUIUM

at 16.30 hrs – Auditorium**

The Age problem : Is our Galaxy older than the Universe?

by Lawrence M. KRAUSS / Ambrose Swasey Professor of Physics, Case Western Reserve University, Michigan

* Please note unusual day.

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