

système produit des factures avec un bulletin de versement postal complété avec le montant total de la facture.

Ceci explique pourquoi vous avez peut-être reçu une facture erronée ou bien vous avez dû remplir entièrement un nouveau bulletin de versement postal pour bénéficier de l'escompte.

L'Hôpital de La Tour a maintenant largement rattrapé ce retard, et a décidé :

- de renforcer le contrôle des factures produites pour les patients couverts par notre convention et de s'assurer que l'information sur le rabais y figure,
- d'insérer dans l'enveloppe un bulletin de versement postal supplémentaire pré-rempli mais dont le montant est laissé blanc, pour que vous puissiez indiquer le montant réduit que vous payez (dans les 30 jours),
- d'accepter temporairement le rabais sur tous les éléments apparaissant sur la facture, même sur ceux qui en sont normalement exclus (voir plus haut),
- de demander au fournisseur de leur logiciel une modification immédiate du formulaire de facture, sans impression du montant sur le bulletin de versement postal,
- de demander au fournisseur de leur logiciel de créer un nouveau formulaire de facture indiquant, en plus du montant total, le montant réduit conformément aux termes de la convention.

Notre Assurance maladie est fondée sur la mutualité, il est donc de l'intérêt de chacun de limiter autant que possible les dépenses de santé soumises pour remboursement. L'escompte accordé par la convention avec La Tour est une possibilité que chaque bénéficiaire doit utiliser.

La variété des méthodes de paiement possibles empêche AUSTRIA d'effectuer un contrôle systématique du paiement effectif des factures. Comme d'autres caisses d'assurance maladie d'organisations internationales, AUSTRIA calcule et paie le remboursement de ces factures après déduction automatique de l'escompte.

Si vous avez récemment payé, dans le délai de 30 jours, le montant total (100%) d'une facture de La Tour, qui a été remboursée par AUSTRIA sur la base du montant réduit, vous pouvez vous adresser au service de Comptabilité de l'Hôpital de La Tour pour obtenir le remboursement de l'escompte.

This explains why you may have received an erroneous invoice or why you had to manually fill in a postal payment slip to benefit from the discount.

Hopital de La Tour has now largely caught up on the delay and decided:

- to reinforce the verification of the bills produced for patients covered under our agreement and make sure that the information about the discount appears,
- to insert in the envelope an additional pre-filled postal payment slip with the amount left blank, so you can fill in the discounted amount when you pay (within 30 days),
- to temporarily accept the discount on all items appearing on the bill, even on those items normally excluded (see above),
- to ask their software supplier for an immediate modification of the bill form, with the amount on the postal payment slip left blank,
- to ask their software supplier to create a new invoice format showing both the invoice total and the discounted total as per the agreement.

Our Health Insurance Scheme being based on mutuality, it is also in your interest to limit as far as possible the health expenses to be claimed for reimbursement. The discount foreseen by the agreement with La Tour is a possibility to be used by any beneficiary of our Scheme.

As the variety of payment methods precludes a systematic check of the actual payment of the bills, AUSTRIA, like the Staff Health Insurance funds of other international organizations, calculates and pays the reimbursement of the bills concerned after deduction of the discount.

Should you have recently paid, within 30 days of issue, 100% of a bill from La Tour, which was reimbursed on the basis of a discounted total by AUSTRIA, you may apply to the Accounting service at Hopital de La Tour for a back-payment of the discount.

SEMINARS SEMINAIRES

Monday 18 October

DETECTOR SEMINAR

at 11.00 hrs – Conference room, bldg 13/2-005

The ISPA-tube, an imaging single photon detector

by D. PUERTOLAS / INFN-ROME

The Imaging Silicon Pixel Array (ISPA)-tube is a position-sensitive photon detector based on hybrid technology. Originally developed at CERN for particle tracking with scintillating fibers, this kind of device has demonstrated excellent intrinsic performances as well as an interesting flexibility. So it can be exploited for many other purposes: for instance, by coupling it to adapted scintillating detectors, we have

Vous pouvez aussi consulter

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

built either γ - or β -cameras, achieving spatial resolutions as good as $\sim 100 \mu\text{m}$.

Several tube prototypes have already been manufactured according to various designs. An overview of the most significant achievements will be presented with a particular attention paid to γ -imaging investigations.

An outlook of present and future studies, aimed at developing a new detector that could be used for SPECT applications in nuclear medicine, will also be presented.

Information:

http://www.cern.ch/CERN/Divisions/EP/Seminars_Welcome.html

Organiser: Rui Ribeiro /EP Division

Tuesday 19 October

DUALITY WORKSHOP

at 14.00 hrs – TH Conference Room

The Geometries of Black Hole Moduli Spaces

by G. PAPADOPOULOS / Leiden

The dynamics of supersymmetric black holes in the small velocity approximation can be described by geodesics in their moduli spaces. The black hole moduli spaces exhibit novel geometries which can be understood in the context of supersymmetric one-dimensional sigma models. As examples, the geometries of the moduli spaces of supergravity five-dimensional black holes which preserve 1/4 and 1/8 of supersymmetry will be presented.

Tuesday 19 October

TECHNICAL PRESENTATION

14.00 - 17.00 – Parking place next to building 252

Endress+Hauser Democar

E+H will demonstrate their equipment to measure process parameters like: Flow, Pressure, Level, Temperature, etc. The Profibus-PA communication will also be demonstrated.

For further information please contact Troels.Bager@cern.ch

Languages: French & English

Mardi 19 Octobre

SÉMINAIRE

à 14h00 – Auditorium SL (Bât.864 /1D-002).

Réseau WorldFIP à 25MHz de la société ALSTOM Technology

Avec Raymond BRUN, Noël FAYARD et Jean-Pierre FROIDEVAUX

Une 12^{ème} réunion d'information avec la société ALSTOM Technology et le Club WorldFIP, pour poursuivre notre connaissance sur l'évolution du réseau de terrain WorldFIP. A noter qu'un réseau WorldFIP à 25MHz détermine équivalent à un réseau 100MHz ETHERNET (dixit ALSTOM Technology).

Ordre du jour:

- 14h00 : ACCUEIL.
- 14h05 : BESOINS POTENTIELS du CERN en matière de réseau WorldFIP à 25MHz.
- 14h15 : INTRODUCTION du CONCEPT 25MHz par le Club WorldFIP.
- 14h30 : PRESENTATION du projet FULLFIP3 (HSF) d'ALSTOM Technology.
 - 1) Besoins (performances, pérennité, intégration,...)
 - 2) Choix (architecture, technologie, ...)
 - 3) Distance et topologie.
 - 4) Objectifs (délai, prix,...)
 - 5) Domaines d'application (nouvelles perspectives)
 - 6) Niveau de compatibilité (avec le matériel et le logiciel existants).
- 15h15 : CONCLUSION
- 15h20 : QUESTIONS et DISCUSSION.
- 15h30 : CLOTURE et PAUSE CAFE.

Nota bene:

Toutes les personnes intéressées par les réseaux de terrain "temps réel", les automates Schneider et Siemens seront les bienvenues.

Cette réunion se fera en français, mais les transparents présentés seront en anglais.

Raymond BRUN SL/LRF (76946-Linkman WorldFIP CERN)

E-Mail : Raymond.Brun@cern.ch

Tuesday 19 October

LIBRARY SCIENCE TALK

at 15h30 – Physics building 40/SS-D01

On-line picture databases

by Christiane MONTARBAUD/CERN

Laboratories, institutes and universities have over the past ten years taken up a technological and organizational challenge: the management of electronic databases. Such systems are built on three main points: a documentation base, a collection of files and an interactive catalogue. Structured information gives the benefit of a better dissemination of information which becomes permanently available for long term access over the Internet.

The CERN has long experience with such a system as it has managed one since 1991 in the CERN central library, with documents such as preprints. Increasingly today, scientific communication is carried out via the exchange of multimedia data, such as photographs and videos. The CERN on-line picture database is a collection of interesting and historically relevant photographs. 2500 digitized items including photographs, charts and drawings can currently be accessed via the World Wide Web interface, at <http://weblib.cern.ch/Photos/>. During this talk, the construction of this database will be explained. Special aspects of photograph management will be underlined. Demonstrations of the catalogue will be made.

Wednesday 20 October

LARGE HADRON COLLIDER COMMITTEE

Open Session

at 09.00 hrs – Auditorium, bldg 500

- 09.00-09.15 Status of the LHC project: L. Maiani
- 09.20-09.50 Status of the LHC machine: L.R. Evans
- 10.05-10.30 ALICE Photon Multiplicity Detector Technical Design Report (LHCC 99-32/ALICE TDR 6; Y. Vinyo)

Wednesday 20 October

COMPUTER SEMINAR

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

Java-based Linear Collider Detector Simulations

by Michael RONAN / LBNL

The Java Analysis Studio (JAS, pronounced jazz...) and the hep.lcd class library provide a general framework for performing Java-based distributed analysis. The package is being developed to fully reconstruct 500 GeV to 1.5 TeV annihilation events for studying the e^+e^- and $\mu^+\mu^-$ detector options for future colliders. The current U.S. effort includes first-pass pattern recognition, vertex finding, clustering, track-cluster association and jet finding for use in detailed detector studies. This talk will describe the JAS/hep.lcd distributed analysis framework, some aspects of the reconstruction object modeling, a concrete example of our tracking code, and show our latest effort to reconstruct Ws from hadronic jets using various energy flow algorithms.

Organiser : G.Folger / IT

Jeudi 21 octobre

SEMINAIRE

de 09.00 hrs à 12.15 hrs – Amphithéâtre IT, bât. 31

ACQUISITION DES DONNÉES DANS LA PRATIQUE AVEC LABVIEW

Par National Instruments / Suisse

Durant ce nouveau séminaire de National Instruments, des applications pratiques seront présentées dans les domaines de la visualisation et de l'acquisition des données. Vous découvrirez de nouvelles technologies pour les systèmes d'automatisation et de mesure pouvant se révéler particulièrement intéressantes pour vos propres applications.

Ce séminaire est conçu de manière à pouvoir répondre aux attentes des néophytes et des utilisateurs expérimentés. Les exemples seront élaborés avec l'environnement de programmation LabVIEW.

Les ingénieurs développeront également quelques applications «live» en plus de la présentation de systèmes préprogrammés. L'acquisition et le traitement des signaux proviendront de divers capteurs, tels que thermocouples, RTD, jauges de contrainte et encodeurs.

Vous aurez l'occasion de suivre des présentations traitant des domaines suivants :

- Automatisation de laboratoire
- Test électronique
- Télécommunications
- Entrées / sorties déportées
- Nouveaux produits
- Cartes FlexScope
- Cartes «faible coût»
- Fieldpoint, système d'entrées / sorties déportées
- CompactPCI / PXI, plate-forme PC pour l'instrumentation modulaire
- LabVIEW Temps réel
- Connexion d'un chassis CompactPCI/PXI via l'interface MXI-3

Agenda:

Début 9h00

- Introduction à NI
- Introduction à l'acquisition de données
- Éléments de base d'un système DAQ

Pause 10h30 - 10h45

- Technique de base d'entrées/sorties
- Présentation des transducteurs les plus communs
- Hands-On
- Sommaire

Fin 12h15

Pour plus d'informations, veuillez contacter:

Herové Baour - NI-CH - tel: 956 200 51 51 ou

Pierre Baehler - IT/CO - tel: 75016

Thursday 21 October

THURSDAY SEMINAR

at 14.00 hrs – TH Conference Room

Radiative Corrections to Z and W Propagators near Resonance

by M. PASSERA / University of Bern

The analysis of the Z resonant amplitude in general R_x gauges shows that, when the original on-shell definition of the Z mass is employed, a gauge dependence of the same magnitude as the current experimental error arises in the next-to-leading order (NLO) approximation. In the next

order of expansion these unphysical effects are unbounded. The extension of this analysis to the W and quarks propagators in the resonance region shows new and more serious problems. The on-shell mass, when applied to photonic or gluonic diagrams, leads in fact in NLO to a non convergent series in the resonance region. A solution to these difficulties, based on the concept of pole mass and width, is presented. The evaluation of the width in the conventional and pole formulations is also compared and shown to agree in NLO but not beyond.

Thursday 21 October

COMPUTING COLLOQUIUM

at 14.00 hrs – Auditorium, bldg 500

The State-of-the-Art in Magnetic Tape Data Recording

by Charlie FAREL / STK

Digital magnetic tape remains the lowest cost method of storing data and information for computing. A brief history of magnetic tape data recording will be presented.

Current state-of-the-art magnetic tape systems will be reviewed, with particular emphasis on fast-access linear designs. Trade-offs with the supporting technologies of recording channels, tape paths, recording and reproduce heads, servo control systems, and the media itself will be discussed. Future developments hold the promise of still lower costs.

About the speaker

Charlie Farel is vice president of Enterprise Nearline Development for Storage Technology Corporation. He is responsible for developing new tape drives and automated tape library products and solutions for StorageTek's enterprise customers.

Since joining StorageTek in 1981, Charlie has held engineering management positions in optical disk, magnetic disk, tape drives and libraries, and advanced technology.

Charlie holds degrees in electrical engineering from the University of Minnesota and Stanford University.

Thursday 21 October

SCIENCE, TECHNOLOGY & INDUSTRY SEMINAR

at 14.00 hrs – Conference Room bldg 40/S2-A01

The HIDAC Story: from CERN Laboratory Bench to World-wide Sales

by Alan JEAVONS / Oxford Positron Systems Ltd, UK

The High Density Avalanche Chamber (HIDAC) is a development of the Multiwire Proportional Chamber in which the cathodes consist of thick, laminated, perforated, lead plates for imaging non-ionising radiation to a high spatial precision in two dimensions. It was invented by Alan Jeavons at CERN in 1973 and subsequently used at Geneva University and Cantonal Hospital for positron imaging. In 1985, Alan Jeavons left CERN and founded Oxford Positron Systems to realise HIDAC's scientific and commercial potential. The first product was the *InstantImager™* for digital autoradiography and, under licence to Packard Bioscience, over 400 units have now been sold in 25 countries. Currently, a camera for 3D Positron Emission Tomography is undergoing trials and will be marketed next year.

This story will be told with particular reference to the personal trials and tribulations of achieving the technology transfer and establishing an independent high-tech company.

Thursday 21 October

LHC PROJECT SEMINAR

at 14.15 hrs – LHC Auditorium, bldg 30, 7th floor

Electro-Topological Analysis and Diagnostics of LHC Superconducting Magnets

by Piotr KOMOROWSKI / LHC

The presentation addresses the design and implementation of diagnostic systems capable of detecting and localizing possible electrical faults in the superconducting coils and in the instrumentation circuits of the LHC magnets. Two different techniques are discussed on the examples of practical cases encountered in the LHC String and in dipole model magnets. The first method is based on the measurement and analysis of the transient magnetic field generated inside the aperture of the magnet by a pulsed discharge. It allows both the longitudinal and azimuthal position of the fault-affected area (e.g. a possible inter-turn short-circuit) to be identified in the fully assembled magnet system with a precision of a few millimeters. The possible electrical failures encountered in the instrumentation circuits of the magnets (e.g. voltage tap, temperature, and pressure transducer circuits) are analyzed with the second technique based on the standard Time Domain Reflectometry (TDR) methods. This approach involves the excitation of the circuit under test with either a fast edge step function or a well-defined impulse and thereafter detection of the amplitude and time of reflections.

Thursday 21 October

SCIENCE & SOCIETY

at 16.30 hrs – Auditorium, bldg 500*

Scientists as Shamans, Shamans as Scientists

by Jeremy NARBY / Organisation "Nouvelle Planète"

Shamanism and science share unsuspected common ground, cast light on each other and confirm each other as paths to knowledge.

Organiser : James GILLIES / AS Division

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

Friday 22 October

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Renormalization of the shape function

by Ugo AGLIETTI / TH Division, CERN

The shape function $f(k_+)$ is introduced to describe Fermi motion effects in inclusive semileptonic $b \rightarrow u$ decays, such as for example $B \rightarrow X_u \ell \nu$. This function is defined in the framework of the low-energy effective theory (HQET & LEET) and has peculiar renormalization properties. The understanding of the latter is essential for connecting the effective theory shape function to the original, high-energy theory, observable. In the seminar an introduction will be given to the basics and the phenomenology of the shape function, together with a discussion of the renormalization in various regularisation schemes and of the matching onto full QCD (coefficient function).

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 $\delta m^2 > 7.3 \cdot 10^{-4} \text{ eV}^2$ 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/>

Science, Technology & Industry Seminars

This series of seminars explores various aspects of Technology Transfer with a strong accent on the CERN scientific culture and the specific needs of an internationally funded organisation.

The topics include:

- Presentations by CERN "alumni" - personnel who have left CERN (or other physics institutes) to start their own businesses - of their experiences, in particular highlighting the advantages and disadvantages of their (CERN) origins.
- Cross-fertilisation between industry and particle physics in terms of the formal and informal exchange of ideas and know-how inherent in the Technology Transfer process. This includes spill-over into industry from CERN-based developments and the spin-off of technology into industrial applications.
- Aspects of the management of technology including good practices in the licensing of technology and the essential good management of intellectual property through the rational use of patent and copyright protection. In addition, the seminars will explore the employment of technology incubators and science parks to aid the transfer of technology by supporting new entrepreneurs in the initial phases of their endeavours.

Further information can be found on our Web site:

<http://www.cern.ch/CERN/Technology>

Organiser: François Bourgeois/DSU Division

Future seminars:

Thursday 11 November

at 11.00 hrs – Conference Room bldg 40/S2-B01

Technology Transfer from Space: The ESA Experience

by Pierre BRISSON / European Space Agency,
Head of Technology Transfer Programme

Friday 26 November

at 11.00 hrs – Conference Room bldg 40/S2-B01

From Research to actual use via Technology Transfer – The background and role of a patent attorney

by Dorothee WEBER-BRULS / Boehmert & Boehmert,
Frankfurt am Main

Monday 13 December

at 11.00 hrs – Conference Room bldg 40/S2-B01

On applications of accelerators in industry and medicine (title to be confirmed)

by Yves JONGEN / Ion Beams Applications IBA,
Louvain-la-Neuve - Belgium

**LAPP - Laboratoire d'Annecy de physique des Particules
F74941 – Annecy-le-Vieux**

Informations : Frédérique MARION, tél. 04 50 09 16 00

Vendredi 22 octobre

SEMINAIRE

à 14:00 heures - AUDITORIUM

Les déformées gravitationnelles du soleil

par Jean-Pierre ROZELOT (Observatoire de la Côte
d'Azur)

Le Soleil est une sphère gazeuse en rotation lente: il en résulte naturellement un aplatissement qu'il semble aisé à première vue de calculer. Et pourtant rien n'est moins facile, essentiellement en raison de deux difficultés majeures. La première est due à la rotation différentielle de l'astre et la seconde est due au fait que les couches internes ne tournent pas à la même vitesse. Dans ces conditions, la résolution "classique" de l'équation de Clairaut ne peut être faite que sous certaines réserves, en particulier celles de l'équilibre hydrodynamique, ce qui n'est pas satisfaisant dans le cas solaire. Le développement en harmoniques sphériques est plus acceptable, mais il suppose que le potentiel de gravité est seul responsable, ce qui, non plus, n'est certainement pas le cas. On peut s'en contenter dans une première approche, en sachant que le formalisme mathématique restera valable si l'on considère par exemple, d'adjoindre un potentiel dû au champ magnétique. Mais pourquoi est-il donc astrophysiquement parlant, intéressant de connaître avec précision les moments gravitationnels successifs du Soleil? La réponse tient en quatre points:

1. D'un point de vue astrométrique pur, il n'est pas satisfaisant de ne pas connaître avec précision l'un des paramètres de la physique solaire. On montrera à ce propos que l'on ne connaît toujours pas avec exactitude la forme du Soleil: celui-ci n'est évidemment pas sphérique, mais ce n'est pas non plus un ellipsoïde, ni un sphéroïde. Il existe certainement des déformations gravitationnelles de l'enveloppe.
2. Du point de vue de la détermination précise des éphémérides, qu'impliquent l'existence de tels moments gravitationnels dans les théories semi-analytiques du système solaire, où jusqu'à présent, ceux-ci sont pris nuls?
3. D'un point de vue relativiste, quels en sont les conséquences?
4. Enfin, la confrontation théorie-observation ne peut qu'apporter des indications précises sur la constitution interne du Soleil. Mais il faut observer ces déformations de surface, ce qui est très difficile, et au-delà des possibilités mêmes de SOHO. On montrera toutefois que les deux essais effectués, le 19 mars 1996 et le 20 mars 1997 ont donné des résultats équivalents aux mesures sol exécutées à l'héliomètre rénové du Pic du Midi. Il est vraisemblable que seule la détection des modes de gravité permettra de résoudre la question, et c'est l'un des objets de la mission spatiale PICARD, acceptée par le CNES, et dont l'auteur est Co-Investigateur.

Au cours de ce séminaire, on tentera donc de convaincre l'auditoire qu'il est fondamental de mesurer avec une précision diabolique la forme de notre astre et d'en tirer les conclusions qui s'imposent, notamment au niveau des implications avec l'irradiance. On énoncera à ce sujet quelques hypothèses physiques avancées conjointement avec nos collègues américains de l'UCLA et de la Washington University. Mais on n'oubliera pas, non plus, de poser le plus clairement possible les définitions de base pour que tout le monde puisse comprendre.