bulletin

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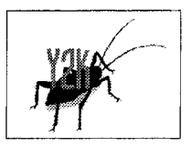
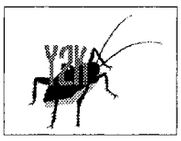
Semaine du lundi 22 novembre | no 47/99 | Week Monday 22 November

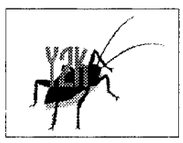
Chronique d'un bogue annoncé

Vendredi 31 décembre 1999, 23h59. Le monde a bien mieux à faire que de se soucier des bogues informatiques : à une minute du nouveau millénaire, l'heure est à la fête ; même tous ceux qui ont prêché que le nouveau millénaire ne commencera vraiment qu'en 2001 comptent les secondes, un verre de champagne à la main. Le CERN est désert. Quel est le pire scénario possible pour l'instant où sonneront les douze coups de minuit (à supposer d'ailleurs qu'ils sonnent) ? Les physiciens ne pourront-ils plus travailler parce que tous les événements, réels et simulés, auront été effacés ? Le LHC sera-t-il achevé avec trois ans de retard parce que les logiciels des fournisseurs n'étaient pas compatible an 2000 ? Les quelques courageux physiciens qui viendront travailler le 1er janvier gèleront-ils devant leur clavier parce que le chauffage ne fonctionne pas ? Ou peut-être n'y aura-t-il pas d'argent sur les comptes du personnel du CERN parce que le programme de calcul des payes s'est mis à l'arrêt tout seul, croyant que les personnes répertoriées ne sont pas encore nées ?





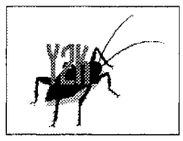
Ne vous inquiétez pas outre mesure, des spécialistes ont commencé à résoudre tous ces problèmes il y a deux ans, lorsque le comité an 2000 du CERN a été constitué. Maintenant, il y a un spécialiste dans chaque service, un coordinateur an 2000 dans chaque division et Jean Dagron, "débogueur" an 2000 de la Division AS, affirme qu'au moins, la dernière image du scénario envisagé ne se concrétisera pas. "Nous avons installé nos principales applications – le programme de ressources humaines et le programme de calcul des payes – dans une machine d'essai et nous avons simulé l'an 2000. Tout s'est bien passé : les feuilles de paye de janvier ont été établies tout à fait correctement" déclare Dagron.



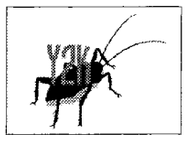
Alors pourquoi les ordinateurs voudraient-ils se mettre en grève au moment du passage de 1999 à l'an 2000 ? "En fait", dit Sverre Jarp, coordinateur général an 2000 au CERN, "c'est un problème très banal." Il réside dans l'espace réservé à l'identification de l'année. S'il comprend quatre chiffres, les programmes passeront l'an 2000, et si ce n'est pas le cas, ils ne le pourront pas. Ainsi, le 24 décembre 1989 est enregistré sous la forme 24-12-89, et non pas 24-12-1989. Aucun problème pour le XXe siècle – ce type de programmation était le plus répandu dans les années 80 (oh, pardon : les années 1980). Mais les complications apparaîtront dès le début du XXIe siècle : un ordinateur ne sachant que ce que son programmeur lui dit, si ce dernier ne lui a pas précisé que l'année 1999 est suivie de l'année 2000, l'ordinateur se croira automatiquement revenu en

A Bug's Life

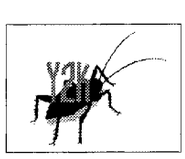
Friday, December 31 1999, 23:59. The world has better things to do than worry about computer bugs: The turn of the millennium is one minute away, it is party time, even all those people who have been preaching that the actual new millennium will only start in 2001 count the seconds, a glass of champagne in their hands. CERN is deserted. What is the worst possible scenario when the clock strikes twelve (if it does, that is)? Physicists cannot work anymore because all real and simulated events have been erased? The LHC will be completed with a three year delay because the software of the suppliers was not y2k-compliant? The few brave physicists who come to work January 1 will freeze to their keyboards because the heating does not work? Or what if there wasn't any money on the accounts of CERN employees because the payroll programme has switched itself off, thinking that the people on the paylist have not been born yet?



Do not worry too much- people started to fix all these problems two years ago when the CERN y2k team was founded. Now, there is one specialist in every service unit, one y2k-coordinator per division, and Jean Dagron, y2k-"debugger" of the AS division, affirms that at least the last vision of the scenario will not happen. "We have installed our main applications, the human resources programme and the payroll programme, in a test machine and simulated the year 2000. Everything went well - the January payroll came out exactly the right way," says Dagron.



So why would computers go on strike when 1999 changes into 2000? "In fact", says Sverre Jarp, general CERN y2k-coordinator, "it is quite a boring problem." It lurks in the space that is given to year name. If this consists of four digits, the programmes are y2k-safe, if not, they are not: December 24, 1989 is listed as 24-12-89, not as 24-12-1989. No problem for the 20th century - this way of programming was most common in the 80s (oh, pardon: the 1980s). But as soon as the 21st century starts, the complications appear: As a computer only knows what his programmer tells him, and if the latter did not specify that after the year 1999 there will be a year 2000, the computer will automatically think itself back in 1900. Elevators, for example, might put themselves into maintenance mode because they assume they have not had a maintenance check for 99 years.



"What we have to do at CERN," summarises Jarp, "is to go through the inventory, find out where the dates are and, if necessary, fix them. Several lay-

1900. Par exemple, les ascenseurs pourraient se mettre en mode maintenance parce qu'ils croiraient qu'ils n'ont pas été contrôlés depuis 99 ans.

"Ce que nous devons faire au CERN," résume Jarp, "c'est établir un inventaire, trouver l'emplacement des dates et les modifier si nécessaire. Plusieurs niveaux peuvent être touchés : le système d'exploitation, l'intergiciel et le programme. Le matériel influe sur les logiciels." Comme c'est le CERN qui écrit les applications qui lui sont propres, il existe le risque qu'on rencontre un bogue, mais que le spécialiste qui serait capable de le supprimer ait quitté l'Organisation. Cependant, ces programmes – systèmes de déclenchement ou programmes d'analyse en différé, par exemple – dépendent peu des dates. Quoi qu'il en soit, il n'y aura pas de faisceau au moment critique, si bien que la physique au LEP ne semble pas courir un très grand danger; si des problèmes se posent, ils auront tout le temps d'être résolus.

La plupart des divisions affirment que leur travail de débogage est achevé à 80 - 90 %. D'un côté, cela signifie qu'il reste 10 à 20 % des opérations à effectuer ; de l'autre, le comité an 2000 suit une liste de priorités dont les éléments les plus urgents ont été traités il y a longtemps. Bien entendu, le CERN achète également des programmes et du matériel à l'extérieur – les fournisseurs ont été interrogés, dans la mesure du possible, sur la compatibilité an 2000 de leurs produits, mais cela risque de poser malgré tout un certain nombre de problèmes. Si, par exemple, le logiciel d'une entreprise qui fournit des pièces pour le LHC ne passe pas l'an 2000, la livraison pourrait être effectuée trop tôt, ou trop tard, ou même pas du tout, ce qui pourrait provoquer des retards dans la fourniture d'autres équipements et risquerai ainsi d'influer sur la date de montage de l'ensemble. Les coordinateurs an 2000 sont bien conscients de cet "effet domino", et ils travaillent dur pour l'éviter. A propos : les utilisateurs de Mac n'ont absolument aucune inquiétude à avoir car leur ordinateur n'est pas seulement préparé à passer sans encombre le cap de l'an 2000 : il peut en fait supporter toutes les dates jusqu'à l'an 29 940.

Dans l'ensemble, les coordinateurs an 2000 du CERN sont optimistes face au problème. Sverre Jarp y voit même d'autres avantages que le simple fait de veiller à ce que les données soient sauvegardées : "Une fois que tout sera terminé, nous connaîtrons bien mieux nos systèmes informatiques. Tout sera modernisé et mis à jour, et nous aurons une vue d'ensemble magnifique !"

Dernier conseil : vous ne devriez pas entrer dans un ascenseur quelques minutes avant minuit le 31 décembre 1999, non pas par crainte de le voir s'arrêter, mais pour ne pas manquer l'arrivée du nouveau MILLENAIRE !

ers may be affected: the operating system, the middleware, the programme. Hardware influences software." As CERN writes its own applications, there is always the danger that the bug is found, but the person who would be able to fix it has left the institute. However, these programmes - trigger systems or programmes for offline analyses, for example - are not very date-dependent. There will be no beam at the critical time anyway, so physics at LEP does not seem to be in great danger; if problems occur, there will be enough time to fix them.

Most divisions state that their debugging process is 80 - 90 % complete. On the one hand, this means that 20 - 10 % still wait to be fixed; on the other, the y2k group follows a priority list whose most urgent items have been taken care of long ago. Of course, CERN also buys programmes and equipment from outside - suppliers have been contacted about y2k-compliance of their products as far as possible, but this might still cause a number of problems. If, for example, the software of a contractor who supplies parts for the LHC is not y2k-compliant, the delivery might come in early, or late, or not at all, which might cause delay in delivery of other parts, which might affect the overall date of assembly...the y2k-coordinators are well aware of this so-called domino effect and are working hard to prevent it. By the way: Mac-users do not have to worry at all, because their computers are not only prepared to pass over correctly to the year 2000, but can in fact handle dates all the way to the year 29,940.

The CERN y2k-coordinators are generally optimistic towards the problem. Sverre Jarp even sees other advantages in it than taking care that data is saved: "Once it is done, we will know our computer systems much better. Everything is modernised and updated - we will have a wonderful overview!"

And finally an advice: You'd better not enter an elevator a few minutes before midnight on December 31, 1999 - not because of fear that it might switch itself off, but because you'd miss the turn of the MILLENNIUM!

Les magasins du CERN

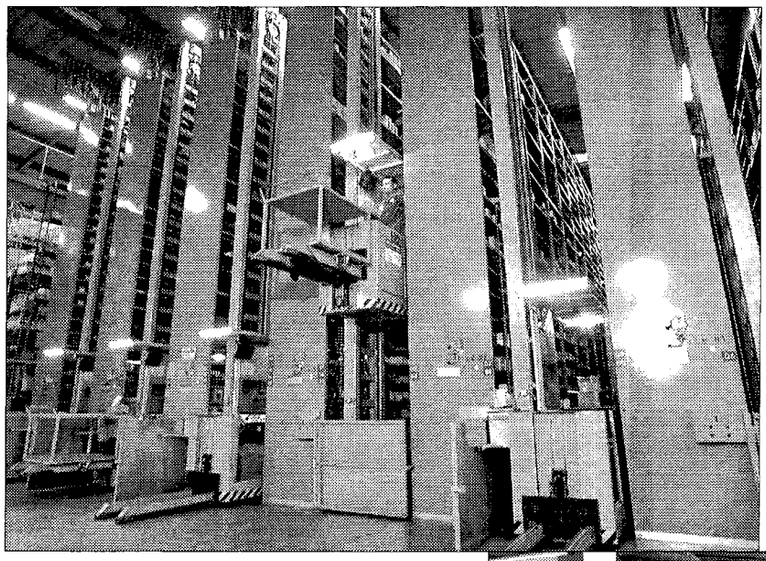
Aujourd'hui, nous allons passer de l'autre côté du miroir pour pénétrer dans le monde merveilleux des magasins du CERN. Nous allons enquêter sur le personnel de ces magasins pour découvrir quelle est leur activité en général, et ce qu'ils peuvent faire pour vous en particulier.

Ici, au CERN, nous possédons un magasin principal, deux magasins en libre service, un magasin de matières premières, un magasin de produits chimiques et (pour que les physiciens se sentent comme chez eux !) un magasin virtuel. Ces installations constituent une part importante du groupe Logistique de la Division SPL. Leur philosophie, explique le chef de groupe Lennart Jirden, est fondée sur le principe mathématique simple selon lequel une commande massive

CERN Stores

Today we go through the square window into the wonderful world of CERN stores. We investigate what the people who work in the stores do, and in particular, what can they do for you?

Here at CERN, we have a main store, two self service stores, a raw materials store, a chemical products store, and (to make the physicists feel at home!) a virtual store. These facilities form an important part of the Logistics Group of SPL Division. Their philosophy, explains Group Leader Lennart Jirden, is based on the simple mathematical principle that one large order costs less in terms of money, time and manpower than many small orders. The stores provide any item which is used often and repetitively at CERN, and



Une commande est retirée de l'immense entrepôt des magasins principaux.

An order is retrieved from the huge warehouse of the main stores.

est plus économique en termes de finances, de temps et de main-d'oeuvre qu'une multitude de petites commandes. Les magasins fournissent tout objet qui est utilisé fréquemment et de manière répétée au CERN, et ils négocient des contrats cadres avec les fournisseurs. Ils revendent ces objets à prix coûtant aux utilisateurs du CERN – il vous suffit d'un code budgétaire et votre groupe est directement débité de la somme correspondante.

Le fonctionnement exact de tout le réseau dépend de certains systèmes informatiques intelligents et du magasin où vous voulez vous fournir. Si vous voulez une petite quantité de quelque chose, disons quelques vis, boulons, condensateurs ou résistances, rendez-vous à la version cernoise de votre supermarché du coin : les magasins en libre service ; choisissez ce que vous voulez et indiquez votre code budgétaire. Pour de plus grandes quantités ou pour des objets plus lourds, les magasins principaux seront votre meilleur choix. Cette fois, vous ne serez même pas forcés de quitter votre chaise favorite : il vous suffit de lire attentivement le catalogue des magasins sur le web, de cliquer sur les objets de votre choix et votre commande vous sera livrée devant votre porte en 24 heures. Le plus difficile pourrait bien être de faire votre sélection parmi les innombrables articles disponibles !

Les employés du magasin de matières premières utilisent des machines spéciales pour découper les quantités exactes de matériau requises.

Workers in the raw materials store use specialist machines to cut the precise amounts of material that are required.

Denis Emmenegger et son équipe du magasin principal reçoivent les marchandises des fournisseurs, les vérifient, les réemballent, leur attribuent un code et les alignent dans l'immense entrepôt dans lequel ils travaillent. Chaque objet a sa place et si vous passez une commande sur le web, elle apparaîtra immédiatement sur un écran d'ordinateur placé à l'extrémité de l'allée concernée. Deux fois par jour, l'un des magasiniers fait le "butinage". Il monte dans un petit véhicule robotisé placé à l'extrémité de l'allée, se déplace en hauteur le long des rayons jusqu'à ce qu'il atteigne l'article de votre choix et le retire. Votre commande vous est livrée le lendemain matin.

Les magasins de matières premières et de produits chimiques sont plus petits, mais ils fonctionnent de la même façon. Commandez par le web et vous serez livrés. Le magasin virtuel n'est malheureusement pas un bâtiment fantôme qui apparaît et disparaît, mais un système dans

negotiate bulk contracts with the suppliers. They sell the items on to CERN users at cost price - all you need is a budget code, and your group is charged directly.

Exactly how it all works depends on some clever computer systems, and on which store you want to use. If you want a small amount of something, say a few screws, bolts, capacitors or resistors...then head down to CERN's version of your local supermarket, the self service stores. Just pick what you want and hand over your budget code. For larger amounts, or for heavier items, your best bet is the main stores. This time you don't even have to leave your favourite chair. Simply peruse the stores catalogue on the web, click on the items you require, and the order will be delivered to your door within 24 hours. The hardest part may well be choosing from the vast number of articles that are available!

Denis Emmenegger and his team at the main store receive the goods from the suppliers, check them, repackage them, code them, and file them in the huge warehouse where they work. Each item has its place, and if you make an order on the web, it will appear immediately on a computer screen at the end of the appropriate aisle. Twice a day, one of the store workers makes a "picking". He gets into a little robot car at the end of the aisle, flies up and along the shelves until he reaches your specified item, and retrieves it. The next morning, your order will be delivered to you.

The raw materials store and the chemical products store are smaller, but they work in a similar way. Order over the

Si vous avez des besoins particuliers ou des suggestions, voici à qui vous adresser!

If you have any particular needs or suggestions, here's who to contact!

De gauche à droite/From left to right:

Henri Piney (Gestion des stocks/Materials management), Pascal Droux (Produits chimiques/Chemical products), Maryse Moskofian (Fournitures, papeterie/Furniture, stationery), Christian Saint-Jal (Matière première/Raw materials), Roger Colmagne (Outillage/Tools) and Jean-Pierre Lyonne (Matériel électronique/Electronics).

lequel les articles sont stockés chez les fournisseurs avant d'être livrés. Le groupe Logistique espère étendre ce magasin virtuel car il offre les avantages conjugués d'une livraison rapide, de contrats intéressants avec les fournisseurs et d'une capacité illimitée puisque les marchandises n'ont pas besoin d'être stockées physiquement au CERN.

Les magasins, tous stocks confondus, détiennent plus de 16000 sortes d'objets différentes. D'où un autre mystère : qui décide de ce qui entre dans les magasins du CERN ? Et comment ces décideurs peuvent-ils savoir ce que vous voulez acheter ? Par chance, Henri Piney, chef de la section Gestion des stocks, est là pour nous l'expliquer : "Pour chaque catégorie de marchandises, il y a un gestionnaire de produit qui est responsable du contenu des magasins". Chaque catégorie d'objets est continuellement passée en revue par un groupe technique qui évalue les besoins futurs des utilisateurs du CERN et adresse des recommandations au Comité consultatif pour la logistique, lequel compte des représentants de chaque division. Le gestionnaire de produit applique alors les recommandations : il met à jour le catalogue en y intégrant de nouvelles technologies et négocie de nouveaux contrats.

La prochaine fois que vous voudrez passer une commande, pensez d'abord à vos propres magasins du CERN car agir autrement, pour reprendre les mots de Jirden, "est tout simplement irrationnel !"

web and your request will be delivered. The virtual store, unfortunately, is not a ghostly building, popping in and out of existence – but is a system where the items are held with the suppliers before being delivered. The Logistics Group is hoping to expand the virtual store, because it offers joint benefits of quick delivery, advantageous contracts with the suppliers, and unlimited capacity, since the items do not have to be physically stocked at CERN.

Between them the stores hold over 16000 different kinds of items. So there's another mystery – who decides what goes into the CERN stores? And how do they know what you want? Luckily Henri Piney, head of Materials Management, is on hand to explain. "For each group of goods there is a Product Manager who has responsibility for the content of the stores," he says. Each category of items is continuously reviewed by a technical group, who look into the future needs of CERN users and make recommendations to the Logistics Advisory Committee, which includes representatives from every Division. The Product manager then implements the recommendations – updating the catalogue by bringing in new technologies and negotiating new contracts.

Next time you want to order something, think first of your own CERN stores. To do anything else, in the words of Jirden, "is just not rational!"

De hauts représentants de la CE visitent le CERN

Le professeur George Metakides et M. Thierry Van der Pyl de la Commission européenne ont visité le CERN le vendredi 12 novembre. Pour le professeur Metakides, directeur de la branche "Technologies et infrastructures essentielles de la Société de l'Information" du programme Technologies de la Société de l'Information de la CE, le but de cette visite était d'examiner une éventuelle collaboration avec le CERN qui s'intégrerait dans le 5e programme-cadre de l'UE. Les deux représentants de la CE ont rencontré le professeur Luciano Maiani, Directeur général du CERN, ainsi que des directeurs d'autres laboratoires de physique des hautes énergies, qui participaient à une réunion sur l'informatique pour la physique des hautes énergies organisée au CERN.

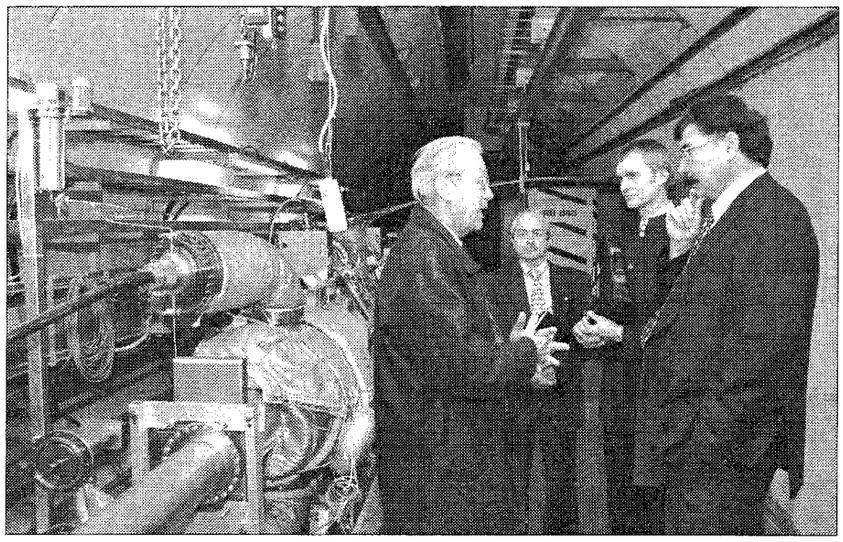
Les spécialistes de l'informatique du CERN, notamment Hans Hoffman, directeur du transfert de technologie et du calcul scientifique, ont expliqué à nos hôtes les défis informatiques majeurs sur lesquels le CERN travaille en vue

Senior EC officials visit CERN

Professor George Metakides and Dr. Thierry Van der Pyl from the European Commission visited CERN on Friday November 12th. The purpose of the visit was for Professor Metakides, the Director of "Essential Information Society Technologies and Infrastructures" in the Information Society Technologies programme of the EC, to discuss potential collaboration with CERN in the context of the EU 5th Framework Programme. They met with Professor Luciano Maiani, CERN's Director General, and directors of other High Energy Physics (HEP) laboratories who were attending an HEP computing meeting at CERN.

CERN computing experts, including Dr. Hans Hoffman, Director for Technology Transfer and Scientific Computing, explained to the guests the major computing challenges that CERN is working towards for the new LHC programme. These include the enormous volume of data that will be produced (several Petabytes, or 10**15 bytes, per year) and the requirement for the data to be collected and processed in

du futur programme LHC ; il s'agira notamment de faire face à l'énorme volume de données qui seront produites (plusieurs petaoctets, ou 10**15 octets, par an) et de recueillir et de traiter ces données en temps réel. Des réseaux à hautes performances et des interfaces web seront également nécessaires pour permettre un accès à ces données à l'échelle mondiale.



Ugo Amaldi et Fabrizio Gagliardi guident George Metakides (Directeur de "Technologies et infrastructures essentielles de la Société de l'Information" àEC), dans le tunnel LEP.

Les informaticiens du CERN s'efforcent d'élaborer des solutions novatrices pour relever ces défis, en utilisant l'informatique du LHC comme un banc d'essai unique et stimulant pour la technologie de l'information de demain. Cet environnement pourrait en outre offrir à d'autres scientifiques et partenaires industriels la possibilité de lancer de nouvelles applications et des systèmes informatiques inédits. Sur le nouveau marché mondial, les possibles retombées de telles collaborations entre la science et l'industrie pourraient être d'une valeur inestimable pour la compétitivité des entreprises européennes.

Au CERN, les économies émergentes comme celles des anciens pays de l'Est travaillent avec les pays industriels les plus puissants, dont les Etats-Unis, le Japon et la Chine – tous ces pays prennent de longue date une part active à nos programmes scientifiques. Nulle part ailleurs l'UE n'aurait pu trouver un environnement aussi international, varié et fertile pour mener une activité commune de recherche et développement, et pour faire naître de nouvelles technologies informatiques.

Ugo Amaldi and Fabrizio Gagliardi guide George Metakides (Director of "Essential Information Technologies and Infrastructures" at the EC), through the LEP tunnel.

real time. High performance networks and WEB interfaces are also needed to allow world-wide distributed access to the data.

Computer scientists at CERN are working hard to develop innovative solutions to these requirements, making LHC computing a unique and challenging testing ground for future Information Technology. This environment could also provide an opportunity for other scientists and industrial partners to pioneer novel applications and computing systems. In the new global market, the potential return of such science-industry collaborations could be invaluable for European industrial competitiveness.

At CERN, emerging economies such as the former Eastern European countries work together with the most powerful industrial nations, including the USA, Japan and China – all have a long standing tradition of active participation in our scientific programmes. Nowhere else could the EU find such an international, varied and fertile environment for joint research and development, and the incubation of new computing technologies.

L'Italie au CERN *Italy at CERN*

Le Ministre italien de la Recherche, Ortensio Zecchino (à droite), avec le Directeur général, le Professeur Luciano Maiani, inspectant un élément d'un aimant LHC à l'exposition "L'Italie au CERN" du mardi 16 novembre dernier.

The Italian Minister of Research, Ortensio Zecchino (right), together with Director General, Professor Luciano Maiani, inspecting an element from an LHC magnet at the "Italy at CERN" exhibition on Tuesday 16 November.

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FERMETURE DE FIN D'ANNEE 1999/2000

Comme annoncé au Bulletin hebdomadaire n° 3bis/99, le Laboratoire sera fermé du samedi 18 décembre 1999 au dimanche 2 janvier 2000 inclus.

Cette période de 16 jours se décompose comme suit:

- 4 jours fériés, à savoir les 24, 25 et 31 décembre 1999, ainsi que le 1er janvier 2000;
- 6 jours de congé spécial rémunéré en application de l'Article R II 4.34 du Règlement du Personnel, soit les 20, 21, 22, 27, 28 et 29 décembre 1999;
- 1 samedi, soit le 18 décembre 1999;
- 2 jours, les 23 et 30 décembre 1999 en compensation des 25 décembre 1999 et 1er janvier 2000 (Article R II 4.33 du Règlement du Personnel);
- 3 dimanches, soit les 19 et 26 décembre 1999 et le 2 janvier 2000.

Le premier jour ouvrable de la nouvelle année sera le lundi 3 janvier 2000.

De plus amples informations pourront être obtenues auprès des secrétariats de divisions, notamment au sujet des conditions applicables aux membres du personnel désignés pour travailler pendant cette période.

Division du Personnel
Tél. 74474-72862

END-OF-YEAR-CLOSURE 1999/2000

As announced in Weekly Bulletin N° 3bis/99, the Laboratory will be closed from Saturday 18 December 1999 to Sunday 2 January 2000 inclusive.

This period consists of 16 days:

- 4 days' official holiday, i.e. 24, 25 and 31 December 1999 and 1 January 2000;
- 6 days' special paid leave in accordance with Article R II 4.34 of the Staff Regulations, i.e. 20, 21, 22, 27, 28 and 29 December 1999;
- 1 Saturday, i.e. 18 December 1999;
- 2 days, 23 and 30 December 1999 to compensate for 25 December 1999 and 1 January 2000 (Article R II 4.33 of the Staff Regulations);
- 3 Sundays, i.e. 19 and 26 December 1999 and 2 January 2000.

The first working day in the New Year will be Monday 3 January 2000.

Further information will be available from Division Secretariats, specifically concerning the conditions applicable to members of the personnel who are required to work during this period.

Personnel Division
Tel. 74474-72862

EXERCICE D'AVANCEMENT 1999

Conformément aux procédures publiées dans le Bulletin hebdomadaire 9/99-1.3.1999, l'examen des propositions de changement de filière de carrière pour les titulaires se trouvant dans les filières II à VI est maintenant terminé.

La liste confidentielle des membres du personnel pour qui un changement de filière a été décidé cette année peut être consultée dans les Secrétariats de Division.

Division du Personnel
Tél. 74480

1999 ADVANCEMENT EXERCISE

Following the procedures given in Weekly Bulletin 9/99–1.3.1999, the review of career path change proposals for staff in career paths II to VI has now been completed.

The confidential list of staff for whom a career path change has been decided may be consulted in Divisional Secretariats.

Personnel Division
Tel. 74480

SEMINARS SEMINAIRES

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

Monday 22 November

DETECTOR SEMINAR

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

Highlights of the 1999 IEEE Symposium on Nuclear Science

by A. ELLIOTT-PEISERT / CERN-EP

The 1999 IEEE Symposium on Nuclear Science was held in Seattle on 26-30 October. This yearly convention is devoted to instrumentation in high energy and nuclear physics. It covers practically all aspects of particle and radiation detection: gas detectors, photo detection, calorimetry, scintillation detectors, semiconductor detectors and radiation damage, tracking and particle identification, analogue and digital circuits. Presentations ranged from descriptions of new radiation detection techniques to first results from working ex-

periments. Selected papers will be presented at the seminar.
Information:
http://www.cern.ch/CERN/Divisions/EP/SeminarsWelcome.html
Organiser: Rui RIBEIRO /EP Division

Tuesday 23 November

SUN SPECIAL INTEREST GROUP MEETING

at 09.00 hrs – IT Auditorium, bldg 31 3-004

Topic: Solaris 7

Organiser : Philippe Defert

Tuesday 23 November

CERN LINUX USERS GROUP MEETING

at 10.00 hrs - IT Auditorium, bldg 31/3-004

The CLUG meeting is an open forum for Linux users and IT support teams to exchange information on new requirements, open questions and to steer the use of Linux at CERN.

Preliminary Agenda

1. Where do we stand in the certification of RedHat 6.1? compilers, applications, AFS, commercial products
2. AFS: Olivier le Moigne/IT will discuss the pros and cons of AFS/3.5 and AFS/3.6 Beta. What do we need?
3. CERN wide software licenses issues, experiences and new additions:
   - StarOffice
   - PGF77
   - VMware
4. Desktop environment. Feedback on the use of KDE, GNOME. The presentation of Victor Robles in the last CLUG is in http://home.cern.ch/v/vrobles/www/
5. Future of the ASIS CD with the CERN Linux release
6. AOB

Organiser : Andres SANDOVAL / EP Division

Tuesday 23 November

SCIENCE, TECHNOLOGY & INDUSTRY SEMINAR

at 11.00 hrs – Conference room, bldg 40/S2-A01

ISTC and its practical achievements

by Norihiko YOKOYAMA / International Science and Technology Centre, Moscow, Russia

Since its official start in March 1994, ISTC finances about 830 projects for the total of 230 million dollars. Including completed projects, 30 thousand scientists are/were receiving grants from these projects. To enhance further self-reliance of participants, use of projects results and IPR protection are largely focused upon in the ISTC activity at present.
The reporter will present such and other topics of interest.

Tuesday 23 November

DUALITY WORKSHOP

at 14.00 hrs – TH Conference Room

Issues in AdS/CFT

by Fiorenzo BASTIANELLI / INFN, Bologna

We use the AdS/CFT correspondence to calculate two and three point functions for a class of chiral operators, including the primary ones, in d = 3, N = 8; d = 6, N = (2,0) and d = 4, N = 4 superconformal field theories at large N. These theories are related to the infra-red world-volume descriptions of N coincident M2, M5 and D3 branes, respectively. The various cases are given a unified treatment by employing a gravitational action in arbitrary dimensions D, coupled to a p+1 form and suitably compactified on AdS(D-2-p) x S(2+p). The interesting cases mentioned above are obtained setting (D,p) to the values (11,5), (11,2) and (10,3).

Tuesday 23 November

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium, bldg 500*

The KARMEN time anomaly; status and perspectives

by Guido DREXLIN / FZ Karlsruhe

The KARMEN experiment at the pulsed spallation facility ISIS at RAL makes use of neutrinos from the pion-muon decay chain at rest to search for oscillations of muon- to electron-type antineutrinos, as well as to investigate neutrino interactions with nuclei. Analysis of data taken from 1990-1995 (KARMEN1) and 1997-1999 (KARMEN2) show no evidence for oscillations (constraining the allowed LSND parameter space), and experimental CC and NC cross-sections agree with theory. However, a distinct excess of single isolated neutrino events centered around 3.6 microseconds after beam-on-target has been observed, which is called the KARMEN time anomaly. As the probability for a statistical fluctuation is exceedingly small (4.3 sigma effect) and no systematic explanation for the effect has been found, we propose as a working hypothesis that the origin of the 100 excess events observed so far could come from a rare decay of a pion into a muon together with a massive neutral particle X with 33.9 MeV mass. A detailed likelihood analysis of the entire data set for this hypothesis is presented, and prospects for further experimental tests are outlined.

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

Wednesday 24 November

LHCC COMPUTING BOARD [LCB]

Open Session

11.00 h - Council Chamber

Status Report RD45 (J. Shiers)

Wednesday 24 November

THEORETICAL SEMINAR

at 14.00 hrs - TH Conference Room

CP violation: challenge and hope for low-energy SUSY

by Antonio MASIERO / SISSA, Trieste

The presence of low-energy SUSY gives rise to new sources of CP violation and with it also to several questions. How severe are the CP constraints on (minimal and non-minimal) SUSY realizations? Could CP violation be a purely SUSY effect? To what extent CP violation in flavour-changing phenomena (for instance in the kaon system) probes the possible link between SUSY breaking and origin of the flavour? And, even more important, can we still hope to have some SUSY signal in CP violating phenomena? While trying to answer (some of) the above questions, the talk aims to show that if it is true that CP represents a serious concern for low-energy SUSY, at the same time it could provide some precious clues in the search for SUSY hints.

Thursday 25 & Friday 26 November

TECHNICAL PRESENTATION

09.00-17.00 hrs – Council Chamber, Rooms A & B, Exhibition Gallery

Workshop on PLCs and Fieldbuses

Programmable Logic Controllers (PLCs) and Fieldbuses are

industrial products used for many years in industrial control applications. There are numerous PLC manufacturers; CERN has made a Market Survey and has selected two large manufacturers (Schneider and Siemens) as providers of General Purpose PLCs and supporters of the three CERN recommended Fieldbus Standards (CAN, Profibus and WorldFIP). PLCs and Fieldbuses are basic and complementary elements for control applications. They are already in use in Accelerators and Experiments and current applications will be reported during this Workshop. The CERN management will express their position concerning these recommendations.
Small PLC and Fieldbus-based control systems will be presented by Schneider and Siemens. Demonstrations by the CERN PLC and Fieldbus User's Group (GUAPI) will also be done.

Thursday 25 November

- Recommendations on the use PLC and fieldbuses by the CERN Management
- Technical presentations on PLC by Siemens and Schneider representatives
- Technical presentations on CAN, Profibus and Worldfip by industrial experts
- PLC and fieldbuses support at CERN

Friday 26 November

- Presentation of PLC and Fieldbus Projects at CERN by their authors
- Round Table Discussion and Conclusion

For more details, see
http://itcowww.cern.ch/PLCWorkshop/plc-fieldbuses.htm
Languages: English and French
Organisers: G. Baribaud/SL & R. Rausch/SL

Thursday 25 November

CERN HEAVY ION FORUM

at 11.00 hrs – TH Auditorium, bldg 4

1. Quark masses and chiral symmetry at zero and non-zero temperature

by Matthias JAMIN / Inst. fuer Theoretische Physik, Heidelberg, Germany

The talk is divided in two parts. The first part discusses the phenomenon of chiral symmetry and its breaking at zero temperature.
Different definitions of quark masses will be compared and their extraction from experiment are briefly explained. Also the quark condensate, an order parameter for chiral symmetry breaking, is discussed. Special emphasis will be put on the strange quark mass and condensate. In the second part the temperature dependence of the various quantities introduced in the first part will be described.
We shall briefly comment on modifications at finite density as well.

2. Vector and D-meson production from heavy-ion collisions

by Gennadi LYKASOV / JINR, Dubna, Russia

The possible broadening of omega-and phi-mesons produced by heavy-ion collisions is discussed. The predictions for widths of these mesons as the function of the vector meson momentum at different nuclear densities and initial energies are presented.
Additionally the D-meson production by hadron-hadron and ion-ion interactions is analyzed. The problem related to the possible hidden charm in the hadron and nucleus is discussed. The predictions for the asymmetry of the produced D-mesons as the function of the Feynman variable x and the transverse momentum p_t are presented.
The possible consequences of the obtained results for heavy-ion collisons at high energies are discussed.

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

Thursday 25 November *

COMPUTING SEMINAR

at 11.00 hrs – IT Auditorium, bldg 31/3-005

C++ Code Analysis: an Open Architecture for the Verification of Coding Rules

by Paolo TONELLA /Istituto Trentino di Cultura-IRST, Trento/Italy

The analysis of C++ code is the basic building block of the collaboration between ITC-IRST and CERN/ALICE, aimed at improving the quality of the software by exploiting the information that can be automatically gathered from the code. The first objective of the collaboration is the development of a coding rule check tool. Successive steps will include a reverse engineering module and an intelligent refactoring tool. Since all planned applications, and possibly also those not yet considered, share a common analysis bulk, particular attention was devoted to the development of an open architecture for the analysis of C++ code. In this talk the adopted architectural solutions are presented and discussed, highlighting their generality, the possibilities of extension that they offer, and the way details could be encapsulated within packages, so that a clear and sharp interface between the subsystems is defined. The peculiarities of the C++ language are also described, together with the way they were approached and the state of the current implementation.

Short biography
Paolo Tonella received his laurea degree cum laude in Electronic Engineering from the University of Padua, Italy, in 1992, and his PhD degree in Software Engineering from the same University, in 1999, with the thesis "Code Analysis in Support to Software Maintenance". Since 1994 he has been a full time researcher of the Software Engineering group at IRST (Institute for Scientific and Technological Research), Trento, Italy. He participated in several industrial and European Community projects on software analysis and testing. His current research interests include software engineering, reverse engineering, object oriented programming and code analysis.

Organiser : F.Gagliardi / IT
** Please note unusual DAY and TIME*

Thursday 25 November

THURSDAY SEMINAR

at 14.00 hrs – TH Conference Room

Out-of-equilibrium dynamics for N-component scalar quantum fields

by A. PATKOS / Eötvös University, Budapest

Effective equations are derived for the real time dynamics of low frequency modes of the N-component scalar fields in interaction with nearly thermalised high frequency components. The statistics of the latter is determined in the low-frequency background self-consistently. Two dynamical problems will be investigated with help of these effective equations: (I) Propagation of small amplitude on-shell waves through the broken symmetry medium. Special attention is payed to the dynamical manifestation of the Goldstone effect in the linear response function. (II) Relaxation of the order parameter to its equilibrium value, after a sudden change of sign in the external "magnetic" field occurs. Here,

in principle, no assumption is made on the smallness of the deviation from equilibrium of the quenched system.

Thursday 25 November

SL SEMINAR

at 16.00 hrs* – SL Auditorium, bldg 864

The LHC Power Converter Systems

by Gunnar Fernqvist (CERN)

The talk will describe the SL-PO participation in the LHC project. The main ring magnet system in LHC poses new, difficult requirements on power conversion and high current measurement technology.
New power converters are being developed in soft-commutated switch mode technolgy. New current transducers for the 13 kA main magnets are being developed as well as a complete calibration infrastructure to assure the very high precision, which approaches 10E-6.
A new real-time converter remote control system is under development. The beam transfer will be powered mainly by converters from LEP and SPS and use an updated version of MUGEF. The talk will cover the principles, the development work and review progress to date.

Information: http://www.cern.ch/CERN/Divisions/SL/news/news.html

Organiser: Werner Herr, SL Division

** Tea and coffee will be served at 15:30 in front of the Auditorium*

Friday 26 November

SCIENCE, TECHNOLOGY & INDUSTRY SEMINAR

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 Dorothée WEBER-BRULS / Boehmert & Boehmert, Frankfurt am Main

All patent attorneys are originally scientists who had, after the completion of their studies, worked as a scientist for at least one year, and then became acquainted with intellectual property by training on the job for around three years to become a German patent attorney and for four years to become a European patent attorney, after final examinations. Therefore, patent attorneys have acquired an education adapted to become a link or interface between research and spin-off of technology into industrial applications, either within one company, between different companies or between a research center and a company.

About the speaker
Dorothée Weber-Bruls, Dipl.-Phys. Dr.rer.nat., (German Patent Attorney, European Patent and Trademark Attorney, Partner) studied physics and geophysics at the University of Frankfurt and specialized in solid state physics. After graduation she worked at Max-Planck-Institute (Grenoble), Institute Laue-Lengevin (Grenoble) as well as Risø National Laboratory, and as a teaching fellow at the University of Frankfurt (PhD in physics), being especially involved in materials science, magnetism, superconductivity as well as measurement and control engineering. Dorothée Weber-Bruls is still particularly interested in these areas of technology

Friday 26 November

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Resummation of Sudakov logarithms in electroweak processes

by M. MELLES / PSI

At future linear e^+e^- collider experiments in the TeV range, Sudakov double logarithms originating from massive boson exchange can lead to significant corrections to the cross sections of the observable processes. These effects are important for the high precision objectives of the Next Linear Collider. We use the infra-red evolution equation, based on a gauge invariant dispersive method, to obtain double logarithmic asymptotics of scattering amplitudes and discuss how it can be applied, in the case of broken gauge symmetry, to the Standard Model of electroweak processes. We discuss the double logarithmic effects to both non-radiative processes and to processes accompanied by soft gauge boson emission. In all cases the Sudakov double logarithms are found to exponentiate.

Monday 29 November

ISOLDE AND NEUTRON TIME-OF-FLIGHT EXPERIMENTS COMMITTEE (ISTC)

Closed Session

13.30 hrs – 6th floor Conference room, Main Building

Please note that there will be no Open Session

Tuesday 30 November

TECHNICAL PRESENTATION

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

NEWS from SUN Microsystems

by MM. René WALPEN and Jean-Luc BOCQUET/SUN Microsystems.

Agenda:
SUN Microsystems will present the latest NEWS about their range of products, including:

Sun Ultra 80
Sun Ultra Enterprise E220R
Sun Ultra Enterprise E420R
NETRA TELCO SERVER
SUN STOREDGE L700 TAPE LIBRARY
SUN STOREDGE A3500 FC
Sun Ray 1 (nouveau Intranet Appliance)
Sun Netscape Alliance (Iplanet)
Jiro et Jini

They will also present information on current promotional offers from SUN.
Question/Answers:
This presentation will be in French, question and answers can be in English.

Organiser : S. Cannon / IT / 75036

Tuesday 30 November*

SL SEMINAR

at 16.00 hrs** – SL Auditorium, bldg 864

Status of the LEP Spectrometer Project

by John MATHESON (CERN/SL)

At LEP I, measurement of the beam energy was performed with high accuracy by resonant depolarisation. At physics energies for LEP II, polarisation of the beams is not achievable and measurements of the total bending field are used, calibrated against resonant depolarisation over the range 41-60 GeV/beam. Uncertainties arise from regions of the field which are not sampled adequately.
The LEP Spectrometer was proposed to give a determination of beam energy for LEP II. The instrument consists of a steel dipole flanked by beam position monitors (BPMs) which

allow measurement of changes in the bend angle. The aim is to achieve a relative precision of 1E-4 on the energy, which requires knowledge of the integral magnetic field to 3E-5 and 1 micron resolution from the BPMs. The commissioning of the Spectrometer has been ongoing through 1999.
The talk will outline energy measurement at LEP, the Spectrometer hardware and the characterisation of the individual subsystems. The current status of the data analysis from the 1999 running will be reviewed.

Information: http://www.cern.ch/CERN/Divisions/SL/news/news.html

Organiser: Werner Herr, SL Division

** PLEASE NOTE UNUSUAL DAY !*
***Tea and coffee will be served at 15:30 in front of the Auditorium.*

Wednesday 1 December

SPS AND PS EXPERIMENTS COMMITTEE

Open session

at 09.00 hrs – Auditorium

1. Status report from NA59: M. Velasco, 30 min
2. Status report from PS212 / DIRAC: L. Nemenov, 30 min
3. Solar Axion Search using a Decommissioned LHC Test Magnet (SPSC 99-21/P312): K. Zioutas, 30 min
4. Proposal to study Hadron Production for the Neutrino Factory and for the Atmospheric Neutrino Flux (SPSC 99-35/P315): F. Dydak, 30 min

Closed session

After the Open Session – 6th floor Conference room, Main Building

Wednesday 1 December

COMPUTING SEMINAR

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

The use of Globus for heterogeneous and distributed applications

by Giovanni ALOISIO, Paolo FALABELLA/ISUFI-University of Lecce

The Globus project (http://www.globus.org) is developing basic software infrastructure for computations that integrate geographically distributed computational and information resources.
Globus is a joint project of Argonne National Laboratory and the University of Southern California's Information Sciences Institute. Led by Ian Foster and Carl Kesselman, it is the work of a talented project team at Argonne, USC/ISI, and the Aerospace Corporation, with significant contributions also being made by other partners.
The talk will show how Globus can be used for the management of on-line scientific data archives and for their on-demand remote processing. Other Globus key points, as the secure management of distributed heterogeneous resources and the mapping of high level user requests into low-level systems procedures, will be described. In the talk we will also present how the Globus functionality is used in the SARA project (a joint project between CACR/Caltech and the HPC Lab/University of Lecce, http:// www.cacr.caltech.edu/sara), whose goal is to develop a Dynamic Earth Observation System (DEOS).

Speakers' Profile:

Giovanni Aloisio

Giovanni Aloisio is Associate Professor of Information ProcessingSystems and Director of the High Performance Computing Laboratory of theDepartment of Innovation Engineering (University of Lecce/ISUFI, Italy). His research interests include parallel and distributed computer architectures. Since 1986 to 1990 he contributed to the Caltech Concurrent Computation Program (C3P) led by Geoffrey C. Fox at the California Institute of Technology, investigating the efficiency of the Hypercube architecture in Real-Time SAR data processing. Actually he collaborates with the Center for Advanced Computing Research (CACR) of the California Institute of Technology on High Performance Distributed Computing projects. He also collaborates with Carl Kesselman of the Information Sciences Institute, on the use of "Computational Grids" for the management of "large collections of scientific data".

Paolo Falabella

Paolo Falabella is a member of the High Performance Computing Lab of the University of Lecce/ISUFI, Italy. In July 1999 he graduated "cum laude" in Computer Engineering with Prof. G. Aloisio. His thesis was a study of the use of the GLOBUS toolkit to build a web-based environment for the processing on demand of EOS images. He has been training on Globus with Prof. Carl Kesselman at the Information Sciences Institute of Marina del Rey (Los Angeles, California).

Organiser : G.Folger / IT

Thursday 2 December

TECHNICAL SEMINAR

LabVIEW Features and Technologies

by Steve ROGERS, National Instruments, Austin (US)

Steve Rogers with National Instruments for the last 16 years, Chief Architect of LabVIEW will present you new LabVIEW features and new LabVIEW products.
The morning presentation is targeted at the existing LabVIEW user base that is interested in taking it further in their applications.
The afternoon presentation is targeted at those people that have and keep inquiring about Real Time and Embeddedness, and have hesitated to look at LabVIEW as a possible alternative.

MORNING Session:

09.00 –12.00 / 2nd December 1999, IT Amphitheater, bldg 31-3-005

LabVIEW Features presentation

Discussion and demos of the following LabVIEW features:

- LabVIEW in the Web (includes discussion on DataSocket, LabVIEW VI Server, etc.)
- LabVIEW Multi-platform
- LabVIEW 6 features, including topic discussions like
  a) LabVIEW as a generator of DLLs,
  b) LabVIEW script code

AFTERNOON Session:

14.00–16.00 / 2nd December 1999, Technical Training Conference room 593-R-010

LabVIEW Technologies presentation

Discussion of the following LabVIEW technologies soon to become LabVIEW products/features:

- LabVIEW RT
- LabVIEW Embedded in PXI/CPCI chassis
- LabVIEW RT for VME control
- LabVIEW RT and distributed I/O (LV RT in FieldPoint)
- short update on LabVIEW for FPGAs and DSPs

For Information contact: Pierre Baehler IT/CO (75016)

Thursday 2 December

CERN COLLOQUIUM

at 16.30 hrs – Auditorium, bldg 500*

Vision – Gateway to the brain

by Christoph VON DER MALSBURG/Institut fuer Neuroinformatik, Ruhr-Universitaet Bochum and Computer Science Department/University of Southern California, Los Angeles

Is the brain the result of (evolutionary) tinkering, or is it governed by natural law? How can we objectively know? What is the nature of consciousness? Vision research is spear-heading the quest and is making rapid progress with the help of new experimental, computational and theoretical tools. At the same time it is about to lead to important technical applications.

Organiser : Luigi DI LELLA / EP Division

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

Friday 3 December

ECFA EUROPEAN COMMITTEE FOR FUTURE ACCELERATORS

at 09.30 hrs – Council Chamber, bldg 503

09.30	1.	Adoption of the Draft Agenda (ECFA/99/199)
	2.	Approval of the Draft Minutes of the Sixty-Fifth Plenary ECFA Meeting (ECFA/99/197/Draft)
09.45	3.	Chairman's Report
10.30	4.	CERN Matters (Director-General)
11.00		**Coffee**
11.30	5.	DESY Matters (A. Wagner)
12.00	6.	Perspectives on Long-Baseline Neutrino Physics with CNGS (A. Ereditato)
12.45		**Lunch**
13.45	7.	Future Computing Requirements for Lattice Field Theory in Europe (C. Sachrajda)
14.30	8.	Publication Policy of Large (A. Clark)
14.45	9.	Report on NUFACT 99 and Physics Aspects of Muon Storage Rings (B. Gavela)
15.15	10.	Report on Machine R&D in Europe for Muon Storage Rings (H. Haseroth)
15.45	11.	Particle Astrophysics and Gravitional Waves (PANAGIC) (A. Bettini)
16.30	12.	Any Other
16.45		**End of Meeting**

Friday 3 December

CAS ACCELERATOR SEMINAR

at 14.15 hrs –Auditorium, bldg 500*

The Fifteenth Lecture

in the John Adams' Memorial Lecture Series

WIGGLERS AND UNDULATORS – Recent developments

by Pascal ELLEAUME / European Synchrotron Radiation Facility, Grenoble

Following an introduction to the radiation properties of Undulators and Wigglers, the technology used to build them, namely permanent magnets and electro-magnets, will be addressed. A presentation will then be made of the latest developments. These include high-field devices, variable polarization (planar/circular) undulators, quasi-periodic undulators and small gap (6–3 mm) devices. The Free Electron Laser is a new field of application for which very long undulators (~100m) are needed, requiring superimposed focusing as well as tight tolerance on the magnetic field.

**Tea and coffee will be served after the lecture (~16.00 hrs) in the Salle des Pas Perdus*

POUR INFORMATION / FOR INFORMATION

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

Vendredi 26 novembre

SEMINAIRE

à 14.00 h – Auditorium du LAPP

Bruit thermique et effets quantiques dans une cavité optique de grande finesse

par Antoine Heidmann (Laboratoire Kastler Brossel, Université P. et M. Curie, Paris)

Les mesures optiques de très grande précision sont limitées par différents types de bruit, parmi lesquels les bruits thermique et quantique jouent sans doute un rôle plus fondamental. Par exemple, les dispositifs interférométriques de détection des ondes gravitationnelles sont limités à basse fréquence par le bruit thermique des miroirs suspendus de l'interféromètre, et par le bruit de photon à plus haute fréquence. La mécanique quantique impose aussi une limite à la sensibilité, liée aux effets de pression de radiation exercée par la lumière sur les miroirs.
On retrouve les mêmes effets dans une cavité optique de grande finesse dont un miroir est mobile. La phase du faisceau réfléchi par la cavité est très sensible à des petits déplacements du miroir, ce qui permet d'étudier l'influence du bruit thermique et les effets quantiques de la pression de radiation. On peut citer parmi ces derniers l'existence d'une limite quantique standard, la possibilité de produire des états comprimés du champ ou de réaliser une mesure quantique non destructive de l'intensité d'un faisceau lumineux.
Nous réalisons une expérience où un faisceau laser est envoyé dans une cavité optique dont l'un des miroirs est déposé sur un résonateur mécanique de grand facteur de qualité. Nous avons observé le bruit thermique du miroir avec une très grande sensibilité, correspondant à des déplacements du miroir de l'ordre du milliardième d'Angström. Nous avons aussi refroidi le miroir en utilisant la pression de radiation d'un faisceau lumineux.

EDUCATION
SERVICES
EDUCATIFS

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

ENSEIGNEMENT ACADEMIQUE
ACADEMIC TRAINING
F. Benz Secretariat ☎ 73127
francoise.benz@cern.ch

ACADEMIC TRAINING

LECTURE SERIES
FOR POSTGRADUATE STUDENTS

22, 23, 24, 25 & 26 November

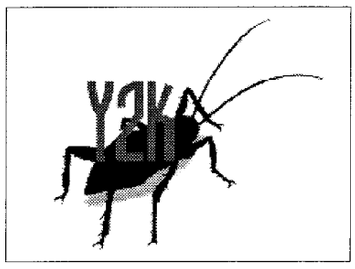
from 11.00 to 12.00 hrs – Auditorium, bldg 500

Standard Model Physics

by G. ALTARELLI / CERN-TH

Introduction. Structure of gauge theories. The QED and QCD examples. Chiral theories. The electroweak theory. Spontaneous symmetry breaking. The Higgs mechanism. Gauge boson and fermion masses. Yukawa couplings. Charges current couplings. The Cabibbo-Kobayashi-Maskawa matrix and CP violation. Neutral current couplings. The Glashow-Iliopoulos-Maiani mechanism. Gauge boson and Higgs couplings. Radiative corrections and loops. Cancellation of the chiral anomaly. Limits on the Higgs mass. Comparison with experiment. Problems of the Standard Model. Outlook.

INFORMATIONS
GENERALES
GENERAL *INFORMATION*



Y2K UPDATE

Concerning Y2K preparation, please note the following:

Everybody, who has a NICE installation on his/her PC, needs to log in to NICE at least once before Xmas to get the Y2K update installed. **This applies especially to dual boot systems.**

The test schedule on Y2Kplus.cern.ch will be prolonged. The last restart took place on 10 November and two more will take place on 24 November and 8 December, respectively.

The Oracle users responsible for the maintenance of Oracle Forms applications which include PL/SQL blocks where date fields are handled with the default format are requested to contact oracle.support@cern.ch at their earliest convenience.

Sverre Jarp
(CERN Y2K co-ordinator, phone: 74944)

COMPUTING SERVICES DURING THE ANNUAL CERN SHUTDOWN

CERN will close on Friday 17th. December at 17:30, and will reopen on Monday 3rd January at 08:30.

As in recent years the Computing Services provided by IT Division will remain available as of Friday 17th at 17:30 but ***running unattended***. The exceptions are the database and dedicated engineering services, which will not be available following agreement with their user communities.

This year, however, is rather special because of the Y2K issue and as such **an interruption is scheduled.**

This was decided in order to ensure that services are not affected by any unforeseen Y2K bugs at a time when support is not easily available, and to ensure that all systems can be started cleanly in the year 2000.

All user services will be closed at 18:00 on Wednesday 29th December after which backups will be taken overnight, then checked and the systems closed down. NO Computing Services will be available again until CERN reopens at 08:30 on Monday 3rd January. The only exceptions are the networking infrastructure, and the email gateway servers to ensure that no incoming mails are lost.

The systems themselves will be restarted and checked out during Sunday 2nd.January in order that services will be available as scheduled when CERN reopens. While all precautions have been taken and possible problems anticipated one never knows and of course this year there are extra risks.

During the ***"running unattended"*** period (17th-29th Dec) there is no guarantee that any problems that may arise will be resolved and we cannot guarantee backups for Home Directory files and mailboxes, for either Unix or PC users. Changes that you may make to your files during this period therefore may be lost in the event of a disk failure.

However, there will be limited operator coverage during this period and users should call the operator (75011) or send an E-mail to Computer.Operations@cern.ch if they encounter problems. An answering machine will respond during times when no operator is present. Users who suspect a problem with networking equipment should call Network Operations (74927).

Service information will be viewable (as now) at: http://tvscreen.cern.ch/

HEALTH INFO SANTE

LE CHIS BOARD ET LA DIVISION DU PERSONNEL VOUS INFORMENT:

MAÎTRISE DES COÛTS DE LA SANTÉ QUELQUES CONSEILS

La santé est une affaire personnelle, chacun recherche et trouve donc ses propres solutions pour maîtriser les coûts. Voici quelques suggestions que vous pouvez tout de suite mettre à l'épreuve...

- dans tous les cas non-urgents, vous efforcer de demander des devis aux hôpitaux et cliniques, et comparer leurs offres avant de vous engager dans des opérations importantes ;
- faire sentir aux médecins, généralistes et spécialistes, votre souci de rechercher des solutions économiquement raisonnables ;
- vous faire expliquer les divers traitements possibles ;
- vous faire expliquer les notes d'honoraires si leur montant vous surprend et contacter AUSTRIA si vous le jugez nécessaire ;
- éviter de prolonger des séjours hospitaliers par simple commodité ;
- vous souvenir que le dossier médical, hormis les notes personnelles du médecin, appartient au patient. Vous pouvez également demander communication des radiographies et analyses de laboratoire. En les conservant, vous évitez éventuellement d'avoir à les refaire inutilement.

Ces quelques indications montrent qu'il est possible de réaliser des économies sans nuire à la qualité des soins. Nous espérons qu'elles vous seront utiles.

HEALTH INFO SANTE

INFORMATION FROM THE CHIS BOARD AND THE PERSONNEL DIVISION:

HEALTH COST CONTAINMENT SOME SUGGESTIONS

Health is a personal matter so it is up to each one of us to find our own ways to curb costs. But here are a few suggestions that you may find useful.

- For non-urgent cases, try asking for estimates from hospitals and clinics and compare them before committing yourself to extensive treatment;
- make doctors realize - whether they are general practitioners or specialists - that you are concerned that your treatment should be at a reasonable cost;
- ask to have the various treatments available explained to you;
- if you are surprised by the size of your bill, insist that the items are explained to you and if necessary contact AUSTRIA;
- avoid long hospital stays for convenience sake;
- apart from the doctor's personal notes, medical files belong to the patient. You are also entitled to your x-rays and lab test results. Keep them thereby avoiding unnecessary repeat tests.

These tips show that savings can be made without undermining the quality of care. We hope they will be helpful.

BATTERIES USAGEES-RAPPEL NOTE DE LA COMMISSION TIS

Les premiers froids allant arriver, les batteries les plus fatiguées des véhicules vont malheureusement rendre l'âme.

A ce propos, la commission TIS vous rappelle que le CERN **ne collecte pas** les batteries usagées des véhicules privés.

Il existe à proximité du CERN, que ce soit en France voisine dans les déchetteries ou aux Cheneviers dans le canton de Genève, toutes les facilités pour vous débarrasser de votre vieille batterie en toute sécurité pour les personnes et pour l'environnement, et ce gratuitement.

La durée moyenne d'une batterie étant de plusieurs années, ce n'est qu'un effort modique que vous avez à fournir pendant la période de vie de votre véhicule.

Alors, s'il vous plaît : plus de batteries abandonnées sur les parkings aux abords ou dans les bâtiments ; nous vous rappelons qu'elles contiennent de l'acide sulfurique concentré pouvant provoquer de très graves brûlures.

Pour de plus amples informations contactez R. Magnier/ TIS-GS / 160879.

USED BATTERIES-REMINDER NOTE FROM THE TIS COMMISSION

Although it is not an obligation for CERN to collect, store and dispose of used batteries from private vehicles, they are often found abandoned on the site and even in the scrap metal bins. As well as being very dangerous (they contain sulphuric acid which is highly corrosive), this practise costs CERN a non-negligible amount of money to dispose of them safely.

The disposal of used batteries in the host state could not be simpler, there are "déchetteries" in neighbouring France at Saint-Genis, Gaillard and Annemasse as well as in other communes. In Geneva Canton the centre de traitement des déchets spéciaux, at Cheneviers on the river Rhône a few kilometers from CERN, will dispose of your batteries free of charge.

So we ask you to use a little common sense and to help protect the environment from the lead and acid in these batteries and even more important, to avoid the possibility of a colleague being seriously injured.

It doesn't take much effort to do this in the correct way, so please help us to improve the safety on site. Should you wish for further help or information please contact:

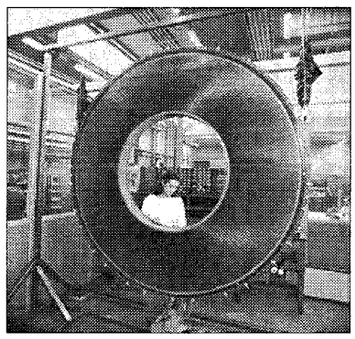
R. Magnier/TIS-GC / 160879.

The quality and the safety of our environment is our own resposibility, with little effort. Let's do it.

Profondément touchés par les témoignages de sympathie et les messages de condoléances reçus lors du décès de

Sylvie LUCAS

Son ami et sa famille remercient très sincèrement tous ses collègues, amis et partenaires du volley et les prient de trouver ici l'expression de leur reconnaissance.



Sylvie en campagne de mesure de vibrations du prototype RD6 du trajectographe interne d'Atlas.

POUR SYLVIE

Tous les collègues et amis du groupe EP/EC, mais aussi d'Atlas et de EP/TA1, garderont un intense souvenir de cette jeune femme aussi dynamique que son sujet de thèse (le comportement vibratoire de structures de détecteurs). Pendant les deux années que nous avons partagées avec elle, nous avons pu apprécier ses grandes qualités professionnelles: souci de la perfection, grande rigueur intellectuelle, dans une attitude toujours humble face aux phénomènes inexpliqués de ses modèles. Mais c'est surtout sa joie de vivre et son entrain à créer autour d'elle la bonne ambiance et la détente que nous retiendrons, et l'immense dignité avec laquelle elle a subi ses dernières épreuves.

Sylvie, tu nous manquais déjà depuis ton départ en juillet pour la division LHC ; alors maintenant, tu penses ! C'est un bien grand vide que tu laisses...

Staff ASSOCIATION du Personnel

BULLETIN HEBDOMADAIRE N° 47 Lundi 22 novembre 1999

SAME CAUSE, SAME EFFECT?

We have recently read in the press that the governing board overseeing the Swiss *Écoles polytechniques* has just ordered the *École polytechnique fédérale de Lausanne* (EPFL) to hire onto its staff the one hundred or so long-term temporary staff responsible for the maintenance of its premises.

The supervisory body asks that this decision be applied retroactively. It will cost the EPFL millions in terms of arrears in salaries and Pension contributions. The *École polytechnique fédérale* has appealed against this decision. One does not doubt that the CGAS (*Communauté genevoise d'action syndicale*) will know how to make the best use of this decision. We will discuss it shortly with them within the framework of the Collectif of organisations which represent the personnel working on the CERN site.

TO BE CONTINUED...

We remind you that since 1996 the "Collectif" is composed of representatives of the Staff Association, the *CFDT de l'Ain* (*Confédération française démocratique du travail*), the CGAS (*Communauté genevoise d'action syndicale*) and the *Groupement des frontaliers*.

The aim of the "Collectif" is to obtain, for result-oriented contracts the application of rules allowing on the one hand loyal competition between firms contacted to bid for industrial support contracts, and on the other hand, protection of the staff concerned in cases of contract transfers from one firm to another.

To this end, the French and Swiss Unions, *l'Union des associations patronales genevoises* (UAPG) and the Association of French Employers, the MEDEF, discussed a draft Site Convention (see the Association's Website). Alone, the Association of French Employers refuse, for the moment, to give their agreement in principle to this draft Convention.

TO BE CONTINUED....

Furthermore, the Association requests the hiring (according to our estimate between 300 and 400 persons are concerned), in a form to be defined, of the contract personnel whose activities cannot genuinely be included in a result-oriented contract. This would be politically, even legally, more correct, economically more profitable, and socially more just.

TO BE CONTINUED...

CLUBS

ACTIVITÉS DES CLUBS DE L'ASSOCIATION

CERN WOMEN'S CLUB CLUB DES CERNOISES

TOMBOLA

First prize WEEKEND in PARIS for two
Second prize DINNER for two
and many more prizes!

On Tuesday, 2nd December the CERN WOMEN'S CLUB will be having its traditional Christmas Sale (a lot of interesting items from home-made jam to Christmas decorations will be on sale) and Tombola. This year we have, thanks to a contribution from Wagon Lits, CERN, a wonderful first prize - a weekend in Paris for two people! Thanks to a contribution from the Hôtel du Parc, Gex we are also able to offer a super second prize of dinner for two and these are only the first two prizes, there are many, many more exciting prizes to be won!!

The profits will be given to "l'Association de personnes handicapées du Pays de Gex", ECLAT, et "l'Association genevoise d'insertion sociale", AGIS.

So buy some Tombola tickets (2.– CHF each) through your group-leader, if you follow an activity, through committee members or at the Christmas Sale coffee morning. The Tombola draw will start at 10:30 a.m. during the Christmas Sale on the 2nd of December, in the Club Rooms (restaurant N° 2, 1st floor). So come and take your pick!!!

For information on the CWC's train trip to the Christmas market in Fribourg, Switzerland that takes place on Friday, 10 December call Renate Rudge: tel. (0)4 50 41 26 65

Le mardi 2 décembre le CLUB DES CERNOISES organise sa traditionnelle vente de Noël (des confitures faites maison, des décorations de Noël et beaucoup d'autres choses seront en vente) et sa tombola. Cette année, grâce à une donation des Wagons Lits, CERN nous avons un merveilleux premier prix: un week-end à Paris pour deux personnes ! Grâce à une donation de l'Hôtel du Parc, Gex vous pourrez gagner un dîner pour deux personnes comme deuxième prix. De plus, il y aura de nombreux prix très intéressants!!

Le produit de la vente et de la tombola sera réparti entre l'Association de personnes handicapées du Pays de Gex, ECLAT, et l'Association genevoise d'insertion sociale, AGIS.

Achetez vos billets de tombola (à 2.– CHF) auprès de vos «group leaders», si vous suivez une de nos activités, des membres du comité ou au «Christmas Sale coffee morning». Le tirage au sort aura lieu le 2 décembre à 10h30 dans les salles du club (restaurant N° 2, 1er étage). Venez tenter votre chance !!!

Pour des informations sur l'excursion en train du CDC au marché de Noël à Fribourg, Suisse qui aura lieu le vendredi 10 décembre, contactez Renate Rudge tél. (0)4 50 41 26 65.

SKI CLUB

http://www.cern.ch/CERN/Clubs/ski/

Pour les inscriptions pour la saison 1999/2000, les permanences du ski-club CERN se tiennent tous les jeudis de 17h30 a 19h00 dans la salle des clubs: bât. 504, 1er étage.

For enrolments for the 1999/2000 season, CERN ski-club permanencies will take place, as usual, all Thursdays between 5:30 and 7:00 p.m. in the clubs room: Bldg 504, 1st floor.

TELETHON 1999

Collonges-Fort-l'Ecluse organise de nouveau un Téléthon cette année. Ce sera du vendredi 3 décembre à partir de 20h00 jusqu'au samedi 4 décembre à 20h00. Durant ces 24 heures, le cyclisme sera à l'honneur, le Vélo Club CERN parrainera cette manifestation. Il va sans dire que les adhérents de notre club se sont joints spontanément à cette manifestation.

Voulez-vous, même si vous n'êtes pas membre du club, relever le défi de rouler pendant une heure entière sur un home-trainer fixe; afin de collecter un peu d'argent. Notre défi sera de parcourir 2000 km en 24 heures avec 3 vélos qui tournent en même temps. Si vous désirez participer contacter Horacio Soares: tél. 04 50 59 68 51, qui vous donnera tous les détails et acceptera bien volontiers votre participation. Merci beaucoup.

SKI CLUB

COURSE D'ORIENTATION

Coupe d'automne 99

RÉSULTATS FINAUX

Long		
1. U. Staugaard	Kolding OK	37 p
1. M. Duruz	OHJ	37 p
2. M. Forsblom	Lidingö	28 p
3. P. Tiapkine	SC CERN	26 p
Moyen technique		
1. P. Lick	CD7404	43 p
2. M. Basler	Versoix	40 p
3. C. Balay	SC Vattay	28 p
Moyen facile		
1. S et D. Balay	SC Vattay	15 p
2. S. Rinolfi	St Genis	11 p
3. M. Radiguet	SC Vattay	8 p
3. A. Jouet	SC Vattay	8 p
Court		
1. C. Auvigne	SC Vattay	14 p
2. N. et T. Cass	SC CERN	12 p
Jalonné		
1. S. Balay	SC Vattay	15 p
2. M et S. Chartreaux	SC Vattay	9 p
3. E. Walbaum	SC Vattay	7 p

CLUB DES DISQUES

http://www/CERN/Clubs/Record

Qu'aimeriez-vous trouver chez nous? Votez pour vos CDs préférés MAINTENANT!

Le club des Disques prépare ses achats traditionnels de Noël pour augmenter notre catalogue déjà bien fourni (environ 3000 CDs!). C'est la première fois que nous organisons un vote électronique afin de rassembler vos avis, et espérons que vous trouverez le temps d'exprimer le vôtre. Afin de vous encourager, un prix sera attribué par tirage au sort parmi ceux d'entre vous qui s'approcheront le plus de la liste finale.

Vous n'avez pas besoin d'être membre pour participer. La liste de vote ainsi que des informations supplémentaires sont disponibles à l'adresse suivante:

http://www/CERN/Clubs/Record/voting/

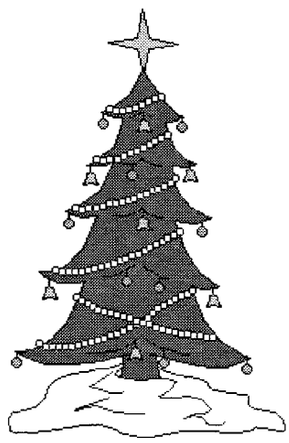
Date limite de vote: 30 novembre. N'hésitez pas à participer !

FÊTE DE NOËL DES ENFANTS

La séance récréative de Noël aura lieu cette année le

samedi 4 décembre à 14h15
Amphithéâtre du Bâtiment principal

L'Association du personnel, en collaboration avec l'Administration, a le plaisir d'y inviter les enfants du personnel du CERN nés en 1992, 1993 et 1994.



CHILDREN'S CHRISTMAS PARTY

The Christmas party will take place this year on

Saturday 4 December, at 2.15 p.m.
Main auditorium

The Staff Association with the cooperation of the Administration is pleased to invite all children of CERN Staff born in 1992, 1993 and 1994.

* * * * *

Nous cherchons des personnes pour nous aider à encadrer les enfants; n'hésitez pas à vous annoncer à J.M. THOMAS, tél.: 72761. Une réunion préparatoire aura lieu avant la fête.

We are looking for people, who would be willing to help us keep an eye on the children, don't hesitate to contact J.M. THOMAS, tel: 72761. A preliminary meeting will be organized before the party.

GROUPEMENT DES ANCIENS DU CERN

La prochaine permanence avec entretiens individuels se tiendra

Mardi 7 décembre 1999
de 14h00 à 17h00

dans la Salle de Conférence de l'Association du personnel, bât. 61, en face de la cafétéria.

Les permanences du Groupement des Anciens sont ouvertes aux bénéficiaires de la Caisse de pensions et à tous ceux qui approchent de la retraite.

Veuillez noter qu'il n'y aura pas de permanence au mois de janvier.

COMMERCE ÉQUITABLE

Le groupe Meyrin Tiers-Monde/ Magasins du Monde

aura un stand au CERN
mercredi 24 novembre
de 11h00 à 15h00

produits alimentaires et artisanaux café, thé, miel, épices, riz, quinoa, sucre Mascobado, tisanes, chocolat, fruits secs, noix, céréales, articles d'artisanat pour adultes et enfants, tee-shirts "made in dignity".

FAIR TRADE

The group MeyrinTiers-Monde/ Magasins du Monde

will have food products and handicrafts stall at CERN
Wednesday 24 November
from 11:00 a.m. to 3:00 p.m.

VENTE D'ARTISANAT

L'Association Éducation et Libération organise une vente d'artisanat d'Afrique et d'Amérique du Sud:

les 25 et 26 novembre
de 11h00 à 15h00
dans le Bâtiment principal

JARDIN D'ENFANTS

Le Jardin d'enfants est à la recherche d'une baraque pour stocker du matériel.

Les personnes qui pourraient nous céder une baraque sont invitées à contacter:

S. Casenove, tél.: 72819

COOPÉRATIVES

INTERFON (Bât. 563)

Mutuelle Interfon

Assemblée générale ordinaire
Mardi 23 novembre 1999 à 17h30
Salle de l'Association du personnel, bât. 61

Vous êtes instamment invités à cette assemblée qui se tiendra en présence de représentants de la Mutualité de l'Ain.

Marché pneus neige
Interfon vous recommande Point S. Équipez-vous avec les nouveaux Continental 790 et 780. Avec ce dernier profil vous obtiendrez une meilleure motricité et une distance de freinage améliorée, davantage de sécurité en cas d'aquaplaning. Prenez rendez-vous, présentez votre carte pour obtenir la ristourne. Inferfon vous enverra la facture.

COOPIN (Bât. 563)

Rayons: photo, parfumerie, droguerie, alimentation, vin, tabac, calculatrices, horlogerie, bijouterie, jouets, textile, jumelles, cassettes...

Braun
- rasoirs Flex integral et ultra speed,
- tensiomètre VitalScan plus,
- thermomètre auriculaire ThermoScan plus,
- brosse à dents électrique Oral-B Plak control,
- multiquick Baby Set pour effectuer des préparations culinaires saines et fraîches,
- brosse soufflante pour coiffer en séchant,
- Control Shape pour sécher les cheveux tout en disciplinant leur mouvement vers l'arrière.

Chocolat de Noël
- grand choix de plaques et de boîtes.
- le chocolat de Noël Lindt (cannelle, coriandre) existe en plaque de 100 et 300 g, ainsi qu'en boule Lindor 200 g.

Spécial Noël
En accord avec la maison **Caviar House**, nous vous proposons pour cette fin d'année 1999 du saumon fumé écossais "Prestige" (entier 1 kg, prétranché 500 g et 1 kg).

Venez déjà le commander à Coopin.
- date limite pour commander: vendredi 10 décembre.
- livraison: vendredi 17 décembre.

Heures d'ouverture du magasin:
du lundi au vendredi
de 13h00 à 16h30
Tél. 72864 – 73637
Fax 782 07 70

RESTAURANTS

Plats conventionnés (déjeuner) semaine du 22.11

	No 1 - COOP Bât. 501 - Site Meyrin	No 2 - DSR tél. 74082/73855 Bât. 504 - Site Meyrin	No 3 - Avenance Bât. 866 - Site Prévessin
Lundi-vendredi Samedi Dimanche	**Heures d'ouverture:** 07h00 - 01h00 07h00 - 23h00 07h00 - 23h00 **Repas servis:** 11h30-14h00 18h00-20h00 **Prix (FS):** a) 7.50 FS b) 8.80 FS	**Heures d'ouverture:** 06h30 - 18h00 Fermé sauf groupes Fermé **Repas servis:** 11h30-14h00 **Prix (FS):** a) 7.70 FS b) 8.80 FS	**Heures d'ouverture:** 07h00 - 18h00 Fermé Fermé **Repas servis:** 11h30-**13h45** **Prix (FF):** a) 21.50 FF b) 25.00 FF
Lundi	a) Tendrons de veau braisés b) Émincé de bœuf strogonoff ESCALOPE DE LÉGUMES SPÉCIALITÉ ASIATIQUE : CARRÉ DE PORC AU WHISKY TOUS LES JOURS GRILLADES	a) Tripes à la portugaise b) Saucisse de porc TRUITE FARCIE RISOTTO AUX BOLETS SPÉCIALITÉ DE LA SEMAINE : RÖSTI CAMPAGNARDS AVEC CHAMPIGNONS ET PARME TOUS LES JOURS GRILLADES	a) Boulettes de boeuf aux poivrons b) Escalope de dinde à la crème Pâtes au beurre Ratatouille niçoise Gratin de poireaux TOUS LES JOURS GRILLADES ET PIZZA
Mardi	a) Saucisson vaudois b) Cordon bleu de poulet COURONNE DE RIZ MADRAS SPÉCIALITÉ ASIATIQUE : MAH MEE (émincé de poulet aux crevettes)	a) Anneaux de calamars à la romaine b) Émincé de poulet au citron DÉSOSSÉ DE LAPIN AUX CHAMPIGNONS DARPHIN DE LÉGUMES	a) Saumonette provençale b) Sauté de boeuf aux olives Polenta au fromage Tomate grillées Haricots verts
Mercredi	a) Quenelles de brochet b) Sauté d'agneau aux raisins CROÛTE FORESTIÈRE SPÉCIALITÉ ASIATIQUE : THIT KHO (sauté de porc au caramel)	a) Spaghetti bolognese b) Osso buco de porc au basilic FILET DE DORADE À LA PROVENÇALE TOMME VAUDOISE PANÉE	a) Oeufs florentine b) Demi coquelet grillé au cognac Gratin dauphinois Epinards Julienne de légumes
Jeudi	a) Steak de bœuf haché aux champignons b) Poitrine de veau roulée MOULES MARINIÈRES CRÊPES AU FROMAGE	a) Tortilla espagnole aux poivrons et oignons b) Dinde 'Thanksgiving day' CÔTES D'AGNEAU AU THYM MOUSSAKA DE LÉGUMES	a) Filet de lieu rôti au citron b) Côte de porc forestière Pommes vapeur ou rissolées Poêlée aux champignons Choux de Bruxelles
Vendredi	a) Blanquette de dinde b) Filet de truite rose CHASSE : CIVET DE CHEVREUIL ŒUFS À LA FLORENTINE	a) Friand à la viande b) Filet de St-Pierre au Gamay POITRINE DE POULET AUX RAISINS TARTE AU FROMAGE	a) Cordon bleu b) Filet de daurade provençale Riz Carottes vichy Côtes de blettes

Fixed price main courses (lunch) week of 22.11

	No 1 - COOP Bldg. 501 - Meyrin Site	No 2 - DSR tel. 74082/73855 Bldg. 504 - Meyrin Site	No 3 - Avenance Bldg. 866 - Prévessin Site
Monday-Friday Saturday Sunday	**Opening times:** 07h00 - 01h00 07h00 - 23h00 07h00 - 23h00 **Meals served:** 11h30-14h00 18h00-20h00 **Prices (CHF):** a) 7.50 CHF b) 8.80 CHF	**Opening times:** 06h30 - 18h00 Closed except for groupes Closed **Meals served:** 11h30-14h00 **Prices (CHF):** a) 7.70 FS b) 8.80 FS	**Opening times:** 07h00 - 18h00 Closed Closed **Meals served:** 11h30-**13h45** **Prices (FF):** a) 21.50 FRF b) 25.00 FRF
Monday	a) Braised veal tenderloins b) Sliced beef Strogonoff SLICE OF VEGETABLES ASIATIC SPECIALITY: ROAST PORK ON THE BONE WITH WHISKY	a) Portuguese-style tripe b) Grilled pork sausage STUFFED TROUT RICE WITH BOLETUS SPECIALITY OF THE WEEK: SWISS HASH BROWN POTATOES WITH MUSHROOMS & PARMA EVERY DAY GRILL	a) Meatballs with peppers b) Slice of turkey with cream sauce Buttered pasta Ratatouille Baked leeks EVERY DAY GRILL & PIZZA
Tuesday	a) Vaud-style sausage b) Slice of chicken 'Cordon bleu' CURRIED RING RICE ASIATIC SPECIALITY: MAH MEE (sliced chicken with shrimps)	a) Rome-style squid rings b) Sliced chicken with lemon RABBIT WITH MUSHROOMS VEGETABLES DARPHIN	a) Rock Salmon b) Beef stew with olives Polenta with cheese Grilled tomato Green beans
Wednesday	a) Pike dumplings b) Spring sautéed lamb with raisins MUSHROOMS ON TOAST ASIATIC SPECIALITY: THIT KHO (Sautéed pork with caramel)	a) Spaghetti bolognese b) Shin of pork with basil PROVENÇAL-STYLE FILLET OF DAURADE BREADED CHEESE TOMME VAUDOISE	a) Hard-boiled eggs with spinach b) Half a grilled chicken with cognac Baked potatoes in cream sauce Spinach Mixed vegetables
Thursday	a) Minced beef steak with mushrooms b) Breast of veal roll MUSSELS CHEESE PANCAKES	a) Spanish tortilla with sweet peppers & onions b) Turkey 'Thanksgiving day' LAMB CHOPS WITH THYME MOUSSAKA WITH VEGETABLES	a) Roast fillet of coal-fish with lemon b) Pork chop with mushrooms Boiled or sautéed potatoes Sautéed mushrooms Brussel sprouts
Friday	a) Turkey stew b) Fillet of pink trout GAME: JUGGED VENISON EGGS WITH SPINACH	a) Mashed meat in puff pastry b) Fillet of John Dory with red wine sauce BREAST OF CHICKEN WITH RAISINS CHEESE TART	a) Turkey slice 'cordon bleu' b) Fillet of sea bream Rice Vichy carrots Swiss chards

Calendrier hebdomadaire 1999 Weekly Calendar

Lundi Monday 22.11	Mardi Tuesday 23.11	Mercredi Wednesday 24.11	Jeudi Thursday 25.11	Vendredi Friday 26.11
11.00 A **ACADEMIC TRAINING** **LECTURE SERIES** **FOR POSTGRADUATE STUDENTS** Standard Model Physics (1/5) by G. ALTARELLI / CERN-TH 11.00 ↘ **DETECTOR SEMINAR** Highlights of the 1999 IEEE Symposium on Nuclear Science by A. ELLIOTT-PEISERT / CERN-EP ***Conference room, bldg 13/2-005***	09.00 IT **SUN SPECIAL INTEREST GROUP MEETING** Topic: Solaris 7 10.00 IT **CERN LINUX USERS GROUP MEETING** 11.00 A **ACADEMIC TRAINING** **LECTURE SERIES** **FOR POSTGRADUATE STUDENTS** Standard Model Physics (2/5) by G. ALTARELLI / CERN-TH 11.00 ↘ **SCIENCE, TECHNOLOGY & INDUSTRY SEMINAR** ISTC and its practical achievements by Norihiko YOKOYAMA / International Science and Technology Centre, Moscow, Russia ***Conference room bldg 40/S2-A01*** 14.00 TH **DUALITY WORKSHOP** by Fiorenzo BASTIANELLI / INFN, Bologna 16.30 A **CERN PARTICLE PHYSICS SEMINAR** The KARMEN time anomaly; status and perspectives by Guido DREXLIN / FZ Karlsruhe	11.00 A **ACADEMIC TRAINING** **LECTURE SERIES** **FOR POSTGRADUATE STUDENTS** Standard Model Physics (3/5) by G. ALTARELLI / CERN-TH 11.00 C **LHCC COMPUTING BOARD [LCB]** Open Session 14.00 TH **THEORETICAL SEMINAR** CP violation: challenge and hope for low-energy SUSY by Antonio MASIERO / SISSA, Trieste	09.00 C & ↘ **TECHNICAL PRESENTATION** Workshop on PLCs and Fieldbuses ***Rooms A & B, Exhibition Gallery*** 11.00 A **ACADEMIC TRAINING** **LECTURE SERIES** **FOR POSTGRADUATE STUDENTS** Standard Model Physics (4/5) by G. ALTARELLI / CERN-TH 11.00 TH **CERN HEAVY ION FORUM** 1. Quark masses and chiral symmetry at zero and non-zero temperature by M. JAMIN / Inst. fuer Theoretische Physik, Heidelberg, Germany 2. Vector and D-meson production from heavy-ion collisions by G. LYKASOV / JINR, Dubna, Russia 11.00 IT **COMPUTING SEMINAR** C++ Code Analysis: an Open Architecture forthe Verification of Coding Rules by Paolo TONELLA /Istituto Trentino di Cultura-IRST, Trento/Italy 14.00 TH **THURSDAY SEMINAR** Out-of-equilibrium dynamics for N-component scalar quantum fields by A. PATKOS / Eötvös University, Budapest 16.00 SL **SL SEMINAR** The LHC Power Converter Systems by Gunnar FERNQVIST (CERN)	09.00 C & ↘ **TECHNICAL PRESENTATION** Workshop on PLCs and Fieldbuses ***Rooms A & B, Exhibition Gallery*** 11.00 A **ACADEMIC TRAINING** **LECTURE SERIES** **FOR POSTGRADUATE STUDENTS** Standard Model Physics (5/5) by G. ALTARELLI / CERN-TH 11.00 ↘ **SCIENCE, TECHNOLOGY & INDUSTRY SEMINAR** From research to actual use via technology transfer – the background and role of a patent attorney by D. WEBER-BRULS / Boehmert & Boehmert, Frankfurt am Main ***Conference Room bldg 40/S2-B01*** 14.00 TH **MEETING ON PARTICLE PHYSICS PHENOMENOLOGY** Resummation of Sudakov logarithms in electroweak processes by M. MELLES / PSI
29.11	**30.11**	**1.12**	**2.12**	**3.12**
13.30 ↘ **ISOLDE AND NEUTRON TIME-OF-FLIGHT EXPERIMENTS COMMITTEE (ISTC)** Closed Session ***6th floor Conference room, Main Building***	10.00 IT **TECHNICAL PRESENTATION** NEWS from SUN Microsystems by MM. René WALPEN and Jean-Luc BOCQUET/SUN Microsystems. 16.00 IT **SL SEMINAR** Status of the LEP Spectrometer Project by John MATHESON (CERN/SL)	09.00 A **SPS AND PS EXPERIMENTS COMMITTEE** Open session 16.00 IT **COMPUTING SEMINAR** The use of Globus for heterogeneous and distributed applications by Giovanni ALOISIO, Paolo FALABELLA/ISUFI-University of Lecce	09.00 IT **TECHNICAL SEMINAR** LabVIEW Features and Technologies by Steve ROGERS/National Instruments, Austin (US) 16.30 A **CERN COLLOQUIUM** Vision – Gateway to the brain by Christoph VON DER MALSBURG/Ruhr-Universitaet Bochum & University of Southern California, Los Angeles	09.30 C **ECFA EUROPEAN COMMITTEE FOR FUTURE ACCELERATORS** 14.15 A **CAS ACCELERATOR SEMINAR** The Fifteenth Lecture in the John Adams' Memorial Lecture Series WIGGLERS AND UNDULATORS – Recent developments by Pascal ELLEAUME / European Synchrotron Radiation Facility, Grenoble

A	Auditorium / bld. 500 Amphithéâtre / bât. 500	**IT**	IT Auditorium – bldg 31/3-004 & 5 Amphithéâtre IT – bât. 31/3-004 & 5	**SL**	SL Auditorium – Prévessin / bldg 864, 1st fl. Amphithéâtre SL – Prévessin / bât. 864, 1er ét.
C	Council Chamber / bld. 503 Salle du Conseil / bât. 503	**LHC**	LHC Auditorium / bldg 30, 7th floor Amphithéâtre LHC / bât. 30, 7e étage	**TH**	Theory Conference Room / bldg 4 Salle Théorie /bât. 4
DG	6th Floor Conference Room, bldg 60 Salle de conférence du 6e étage, bât. 60	**PS**	PS Auditorium / bldg 6, 2-024 Amphithéâtre PS / bât. 6, 2-024	↘	place as indicated lieu selon indication

Deadline for insertion : Tuesday 12.00 hrs
Dernier délai pour insertions : mardi 12.00 h

Media & Publications (AS) : bldg 510/R-014, tel. 73475
Media & Publications (AS) : 510/R-014, tel. 73475
e-mail : *Jeanine.Melin@cern.ch*

Staff Association : bldg 64/R-002, tel. 72819
Association du Personnel : bât. 64/R-002, tél. 72819
e-mail : *Staff.Bulletin@cern.ch*