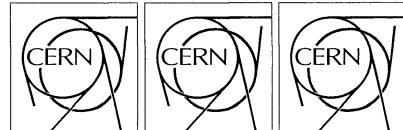




bulletin



Semaine du lundi 27 avril

no 18/98

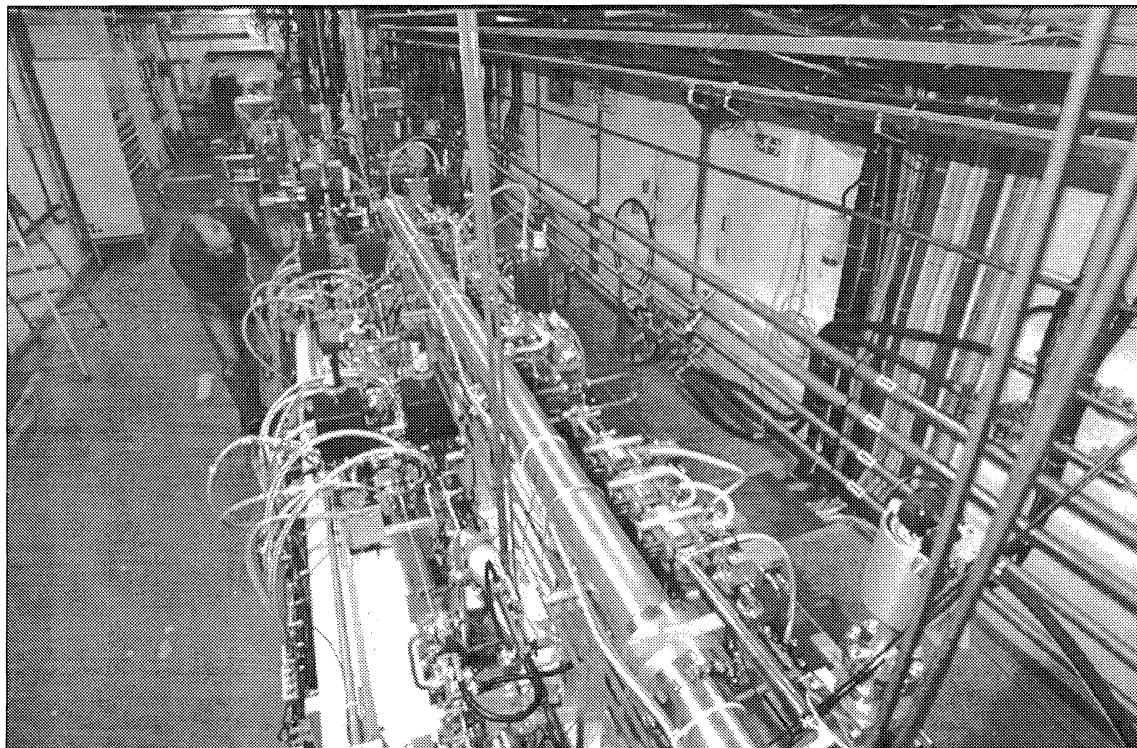
Week Monday 27 April

Première démonstration du CLIC, l'accélérateur bifaisceau

Au cours de la première décennie du siècle prochain, le grand collisionneur de hadrons LHC du CERN fournira pour l'expérimentation en physique des particules des protons sept fois plus énergétiques que ceux du Tévatron au laboratoire Fermi. L'Allemagne, le Japon et les Etats-Unis préparent leurs propositions de collisionneurs linéaires possédant cinq fois l'énergie du LEP. Mais après? Au CERN, l'équipe d'étude du CLIC (le collisionneur linéaire compact) se penche sur l'option d'une machine électron-positon d'énergie encore plus élevée. L'avenir à long terme n'est jamais vraiment aussi éloigné qu'il peut paraître et si l'on tient compte d'un temps de gestation toujours plus long

First demonstration of the CLIC two-beam acceleration scheme

In the first decade of the next century, CERN's Large Hadron Collider (LHC) will provide protons for particle physics experiments at energies which are seven times higher than the Tevatron at Fermilab. In Germany, Japan, and the United States proposals are being prepared for electron-positron linear colliders with energies that are five times higher than LEP. But what of the future beyond that? One possible option is an even higher energy (1-5 TeV) electron-positron machine being studied by the Compact Linear Collider (CLIC) study team at CERN. The long-term future is never really as far away as it seems, and with ever increasing time-scales for new accelerator projects, the CLIC



Test d'installation du Clic.

Clic test installation.

pour les nouveaux projets d'accélérateurs, l'étude du CLIC arrive à point nommé. Au LEP il a fallu 15 ans entre l'idée et sa concrétisation, pour le LHC le délai dépassera 20 ans, il n'est donc pas prématûré de penser aujourd'hui à une machine pour l'après-LHC.

Le CLIC ne ressemble à aucun des accélérateurs existants, les particules y puisent leur énergie dans un faisceau d'électrons annexe parallèle au linac principal et non plus dans des cavités accélératrices alimentées en puissance RF par des klystrons.

study is really quite timely. LEP was about 15 years from inception to operation, the LHC will be over 20 years, so thinking about a post-LHC machine is certainly not premature.

CLIC is unlike any accelerator ever built; instead of using klystrons to produce the RF power for the cavities which accelerate the particles, this power is extracted from a secondary electron beam which runs parallel to the main linac. The other remarkable feature of CLIC is its size: the vacuum pipe which carries the beams is just 4 millimetres

L'autre caractéristique remarquable du CLIC est sa taille: le tube à vide abritant les faisceaux ne mesure que 4 mm de diamètre et chacun des aimants ou des structures d'accélération rentrerait dans une petite valise! La qualité du positionnement est cruciale, en fait les éléments doivent être alignés à une dizaine de millionièmes de mètre près (10 mm).

L'objectif final est de construire un collisionneur linéaire électron-positon de 3-5 TeV d'énergie maximale, 25 fois plus qu'au LEP. Dans le cadre des études de faisabilité, l'équipe CLIC a construit et récemment mis en service une section d'essai de 3 mètres d'un accélérateur à deux faisceaux de 30 gigahertz (GHz) à l'installation d'essais du CLIC (CTF). Prouver qu'une telle méthode marcherait à une fréquence aussi élevée que ces 30 GHz constituait un objectif ambitieux, mais l'équipe CLIC a démontré que c'était réellement faisable.

Dans le CTF, le faisceau annexe d'électrons de 60 MeV comprend un train de 48 paquets produit par un laser frappant une photocathode en Cs₂Te (tellurure de césum) dans un canon RF de 3 GHz fonctionnant sous un gradient accélérateur de 100 millions de volts par mètre (MV/m). Le faisceau principal, formé d'un seul paquet d'électrons, est produit dans un canon photo-injecteur du même type puis accéléré par les secteurs à deux faisceaux de deux structures accélératrices à 30 GHz (trois autres suivront). Un système de positionnement actif de précision maintient l'alignement des deux linacs dans des marges de ± 4 mm. Actuellement la charge maximale du faisceau annexe n'est que de 100 nanocoulombs (nCb), mais on prévoit qu'elle atteindra plus de 500 nCb dans le courant de l'année lorsque les deux nouvelles sections accélératrices récemment montées deviendront pleinement opérationnelles. Avec un tel faisceau d'entraînement, on devrait parvenir à un gradient accélérateur dépassant 80 MV/m sous 30 GHz.

La démonstration réussie de l'accélération bifaisceau constitue un pas important pour l'équipe CLIC et peut-être aussi pour l'avenir à long terme du CERN.

in diameter, and each of CLIC's accelerating structures and magnets would fit into a small suitcase! Good alignment is vital, in fact the components have to be aligned to about 10 millionths of a metre (microns).

The ultimate goal is to build an electron-positron linear collider with a maximum energy of 3-5 TeV, up to 25 times that of LEP. As part of its feasibility studies the CLIC team has built and recently commissioned a 3 metre-long section of a 30 GigaHertz (GHz) two-beam test accelerator in the CLIC Test Facility (CTF). Demonstrating that such a scheme would work at such a high frequency as 30 GHz was an ambitious goal but the CLIC team has shown that it is indeed feasible.

In the CTF the 60 MeV secondary electron beam consists of a train of 48 bunches which are generated when a laser strikes a Cs₂Te (caesium-tellurium) photocathode in a 3 GHz RF gun operating at an accelerating gradient of 100 million volts per metre (MV/m). The primary beam, consisting of a single electron bunch is produced by a similar photo-injector gun and is accelerated in the two-beam section by two (three more are to be added later) 30 GHz accelerating structures. Both 30 GHz linacs are maintained in position within a window of ± 4 microns by a precision active-alignment system. The maximum charge in the secondary beam is for the moment limited to about 100 nanocoulombs but is expected to reach more than 500 nanocoulombs later in the year when two newly installed 3 GHz accelerating sections are fully operational. With 500 nanocoulombs in the primary beam, accelerating gradients at 30 GHz of more than 80 MV/m should be possible.

The successful demonstration of two-beam acceleration is an important step for the CLIC team and possibly for CERN's long term future.

Bureaux minute

La surface de bureaux au CERN vient de s'accroître spectaculairement avec la construction, sur le toit du bâtiment 112, de 1400 m² de nouveaux bureaux destinés à une centaine de scientifiques et d'ingénieurs attachés au projet LHC et jusqu'ici dispersés. En temps normal, une entreprise d'une telle ampleur aurait pris plusieurs mois et ne serait certainement pas passée inaperçue, mais personne ne vous reprochera de ne pas avoir remarqué celle-ci. Etonnamment, elle a été menée à bien en deux jours seulement.

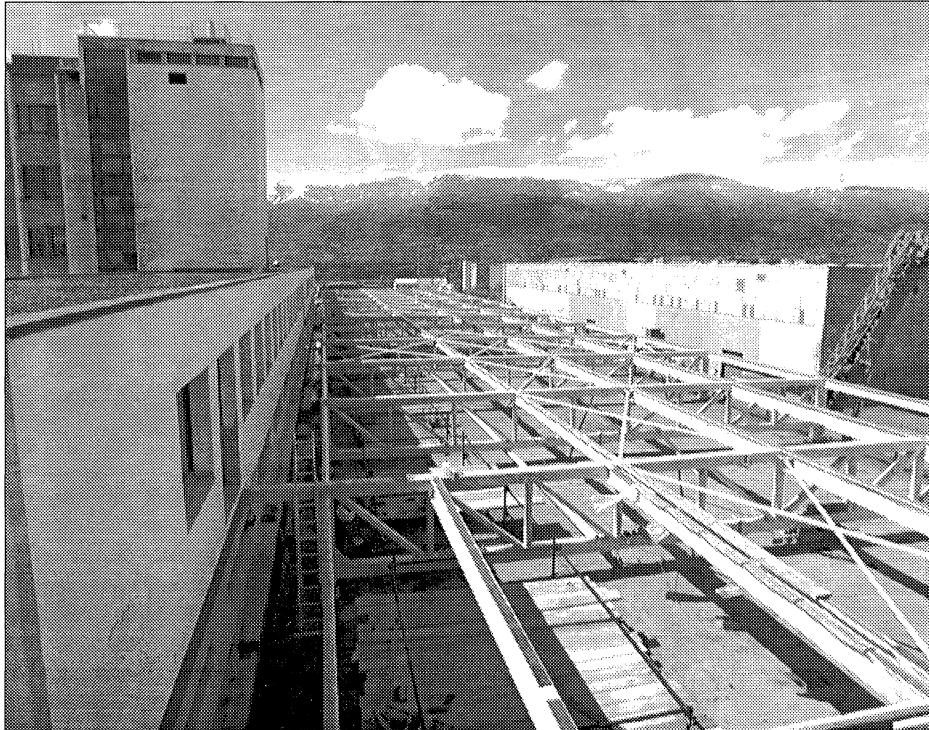
Clé du mystère: les bureaux ont été préfabriqués en-dehors du CERN et assemblés sur place. Trois possibilités avaient été envisagées. La première, traditionnelle, consistait à agrandir un bâtiment de bureaux actuel, la deuxième à installer des bureaux préfabriqués sur un parking et la troisième à monter des modules de bureaux préfabriqués, mesurant chacun 13,6 sur 3,2 mètres, sur le toit d'un bâtiment existant. C'est cette dernière qui a été retenue.

Instant offices

CERN's office capacity has just taken a giant leap with 1400 square metres of new offices built to accommodate 100 scientists and engineers working on the LHC project. The new offices have been built on top of building 112 with the aim of bringing CERN's scattered LHC community together in the same place. Normally, such a large scale undertaking would take months and would not escape attention, but you could easily be forgiven for missing this one. Amazingly, the whole job was completed in just two days.

The secret is that the offices were prefabricated away from CERN and assembled on-site. Three options were considered. First the traditional solution of extending an already existing office block. A second option was to install prefabricated offices in a parking lot, but the option chosen was to mount prefabricated office modules, each measuring 13.6 by 3.2 metres, on the roof of an existing building.

Une étude de marché a été effectuée auprès de 63 entreprises et un appel d'offres adressé à 13 d'entre elles. Le marché a été emporté par l'entreprise KIFA A.G., installée en Thurgovie, à environ 350 kilomètres du CERN. Un second contrat a été attribué à l'entreprise italienne Immobiliare 2000, qui a érigé la structure sur laquelle reposent les nouveaux bureaux.



Avant...

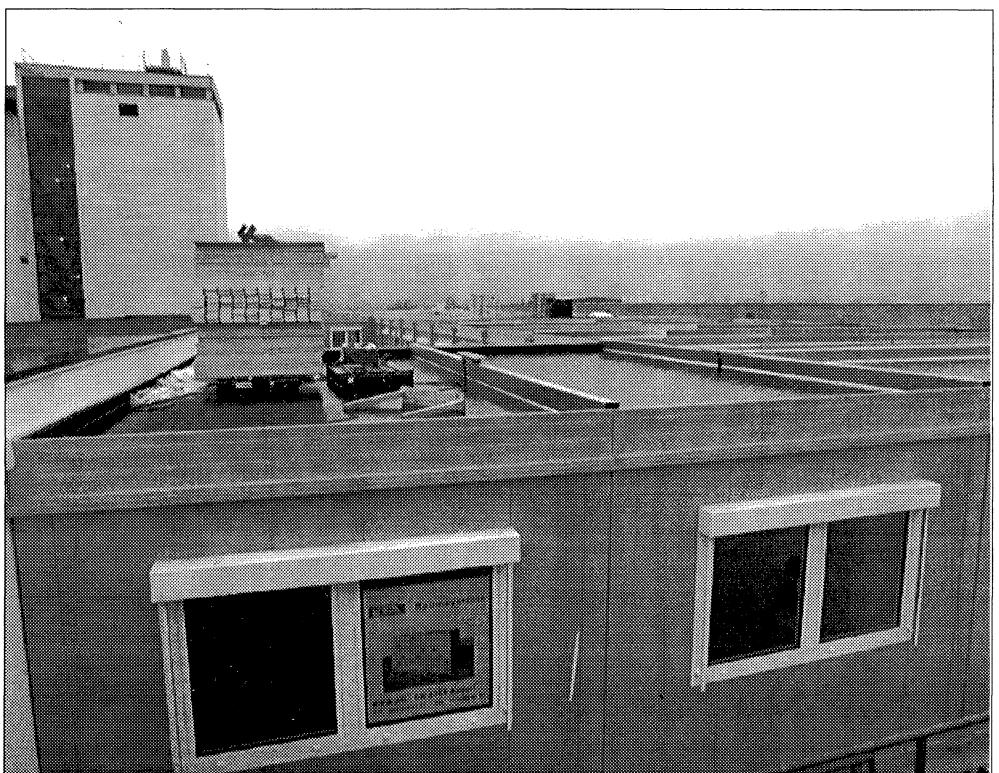
Before...

A la fin du mois de mars la structure de soutien était en place et tout était prêt pour la livraison des nouveaux bureaux. L'opération avait été planifiée dans ses moindres détails: 17 camions devaient faire deux fois l'aller retour entre la Thurgovie et le CERN les 15 et 16 avril. A huit heures, le 15 avril, le premier camion arrivait au CERN et le lendemain tous les bureaux étaient montés. Tous les équipements nécessaires pour l'éclairage, le chauffage et les réseaux informatiques ont été installés à l'usine, de sorte que l'aménagement des bureaux prendra seulement trois semaines. Les nouveaux occupants pourront emménager le 8 mai, après l'installation de bureaux la plus rapide de l'histoire du CERN.

In a market survey 63 firms were consulted and a call to tender was sent to 13. The winning company is KIFA A.G. based in Thurgau, some 350 kilometres from CERN. A second contract was also awarded to the Italian firm Immobiliare 2000 who erected the support structure on which the new offices rest.

With the support structure complete by the end of March, everything was ready for the new offices to be delivered. The operation was planned to the smallest detail with 17 trucks making two round trips from Thurgau to CERN on 15 and 16 April. The first truck arrived at CERN at 08.00 on 15 April, and by the following day, the offices were all in place. All the necessary fittings for lighting, heating and computer networks were installed at the factory meaning that just three weeks will be needed to prepare the offices for their new occupants. People will be able to move in on 8 May after CERN's fastest ever office installation.

*... après.
... after.*



COMMUNICATIONS OFFICIELLES

OFFICIAL NEWS

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

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For 8information

MANAGEMENT BOARD MEETING OF 15 APRIL 1998

Outcome of the March Meetings of the Scientific Policy Committee, the Finance Committee and the Committee of Council

The Director-General, reporting on the outcome of the March meetings, announced that the Finance Committee, in addition to its scheduled business which had included approval of cryogenics contracts for the LHC, had decided to lift its proviso on the signing of the civil-engineering contracts adjudicated in November 1997 in view of the fact that planning permission for LHC had now been granted in Switzerland and that the authorization procedures had now reached an advanced stage in France.

The main items on the agenda of the Committee of Council had been: non-Member State matters (including potential applications for membership and the granting of observer status); funding arrangements for operation of LEP in the year 2000; a report on exploitation of the energy amplifier and neutron-driven element transmuter projects being conducted at CERN under the leadership of C. Rubbia; setting-up of a working group on the procedures for selection of future Directors-General.

Professional activities of retired members of staff

The Director-General further reported that he had informed the Committee of Council at its March meeting of the CERN Management's intention to propose an addition to the Staff Rules and Regulations, for approval by Council in June. Some three months earlier, he had learned of a proposal which had drawn his attention to the fact that CERN's Rules do not prevent retired staff members taking up positions in which knowledge acquired as a staff member could give particular advantages to a company or Member State in its relations with CERN (in contrast to the spirit of the rules that apply, for example, in many civil services). He considered this to be a serious shortcoming, and had confirmed that this view was shared by many delegates.

Standing Concertation Committee and TREF Matters

The Director of Administration, M. Robin, announced that the main item on the agendas of recent and forthcoming meetings of both the Standing Concertation Committee and TREF were the arrangements for compensation to the Pension Fund for additional early departures and the further reduction in the staff complement. In addition, it was intended to draw up, for examination at the Standing Concertation Committee and subsequently TREF, a draft proposed provision for

insertion into the Staff Rules and Regulations concerning professional activities on retirement from CERN.

Health and Safety

The Leader of the TIS Commission, H. Schönbacher, presented an extensive status report for 1997 on health and safety at CERN, concentrating in particular on the following areas: PCB elimination campaign (530 T already eliminated at a cost of 7.3 MCHF); safety structure of the LHC experiments; safety co-ordination for the LHC machine and experiments (with details of duties of the LHC Safety Co-ordinators); realistic fire training and other Fire Brigade issues; control of radioactive materials and other radiation matters [including discussions with a view to the ultimate dismantling of LEP in compliance with France's installations nucléaires de base (INB) regulations]; mechanical engineering and inspections (including safety assessment of the structural design and equipment for the LHC machine and experiments); the regular programme of environmental monitoring of radiation and radioactivity and air and water quality.

In addition, he also presented statistics on accidents, Fire Brigade interventions, medical issues and personal radiation doses. Concerning radiation protection, he underlined that the maximum personal doses at and in the vicinity of CERN in 1997 for personnel and for the public had once again been consistently well below the corresponding prescribed maximum rates in CERN's Radiation Safety Manual for 1996, which were themselves substantially lower than the maximum annual doses set by either of the Host States or the European Union.

Major matters to be addressed by TIS in 1998 included radioactive material storage and disposal, the INB procedure for the LHC, introduction of safety co-ordinators for the LHC machine and experiments and the BA3 fire follow-up.

Report of Chairman of SAPOCO¹

The Chairman of SAPOCO, H. Haseroth, presented the annual report of SAPOCO, summarising the main issues addressed during the year, which had included the fire in BA3, safety in the barracks, fire and gas detection systems, safety training, smoking policy at CERN, availability of all safety documents on the Web, the safety code relating to confined spaces and revision of the safety code relating to pressure equipment. The Committee had also underlined the importance of suitable appointments to positions of responsibility in safety matters and of safety training,

follow-up and control, particularly with a view to the LHC. In the latter regard, the Management Board took note that the development of appropriate training programmes was under discussion with the Education Services of PE Division.

Report on Health Insurance

G. Hentsch summarised the findings of an in-depth survey of the health insurance situation at CERN, including collection of comparative statistical data on levels of consumption and the cost of health care provision in France and Switzerland. While for the time being health costs were being contained relatively effectively, particularly following the introduction of a number of cost containment measures (including the introduction of additional premiums for spouses in gainful employment), the general conclusion of the report was that more action was needed, both on the supply and demand sides, to contain costs in the longer term with the prospect of an increasingly ageing CERN staff complement and a greater proportion of pensioners among the insured population.

The Management Board expressed appreciation to the compilers of the report, discussed its conclusions and recognised, in particular, the need for increased awareness among the insured population of the implications of increasing health care costs and for agreement between the Management and the Staff Association on ways of maintaining standards of health-care cover while keeping costs down. More generally, it was also agreed that it would be desirable for the Organization, in association with other international organizations in Geneva, to investigate the possibility of negotiating reductions in the tariffs applying to international civil servants in Geneva, particularly in the context of hospitalisation.

Report on the work of the CERN Health Insurance Supervisory (CHISB) Board²

P. Bernard presented a short status report on the work of the CERN Health Insurance Supervisory Board, underlining that the three current main issues being addressed were cost containment, the negotiation of a new health insurance agreement (the current agreement with Austria is due to expire at the end of 1999) and long-term care.

The Management Board took note, with satisfaction, that the CHISB was drafting a letter to be circulated to all insured members of the CERN health insurance scheme aimed at raising awareness of health care and health insurance issues.

Report on Space for the LHC machine

P. Faugeras presented a report on space requirements for LHC installation, storage of LHC components and dismantling of LEP, underlining that according to current estimates and on the assumption of full availability of the ISR tunnel and elimination of non-reusable LEP components, there would be a storage space shortfall of between 10 000 and 20 000 m² for the accelerator sector which would reach a peak level in the years 2001 to 2004. One possible solution to the space deficit would be the construction of a relatively light expandable modular structure on a concrete slab with limited facilities as buffer storage for LHC components.

The Management Board recognised the urgency of rapid action to resolve the problem before the space shortfall became critical, agreed that Research Sector and TIS space allocations, notably in the ISR tunnel, should be confirmed and decided that it would be appropriate for the Directorate to examine a specific proposal concerning a solution to the space deficit in the Accelerator Sector along the lines indicated.

CERN Open Day

The Management Board expressed satisfaction at the great success of the CERN Open Day on Saturday 4 April and conveyed its appreciation to all those involved and in particular to the organisers. Division leaders were invited to send any comments to the AS Division Leader J. Ferguson.

Proposal for resale of desktop equipment

The Research and Technical Director, H. Wenninger, presented a revised proposal for the terms, conditions and general arrangements for the resale of obsolete desktop equipment.

Recruitment by saved-leave programme

It was announced that the number of applications for slices under the recruitment by saved leave programme had now risen to 1610 for 1998.

La version française paraîtra dans le Bulletin de la semaine prochaine.

1 Membership: M. Borghini, H. Haseroth (Chairman), T. Linnecar, D. Plane, K. Potter, J. Roche, H. Schönbacher, L. Stämpfli (secretary) and F. Thizy (DSOC Chairman)

2 CHISB members: Management representatives: M. Baboulaz (secretary), H. Degenkolbe, G. Hentsch, G. Lindecker; Staff Association representatives: M. Aymon, S. Weisz (Staff Association Alternate: S. Maio); Groupement des Anciens du CERN representatives: J.-P. Diss, P. Lazeyras, (GAC Alternate: R. Budde); Standing invitation: M. Robin (SCC Chairman), M. Vitassee (SCC Vice-Chairman), E.-P. Maquet and V. Fassnacht (Medical Service)

SEMINARS SEMINAIRES

Monday 27 April

CERN HEAVY ION FORUM

at 15.30 hrs – Conference Room, bld. 160/1-009

Strangeness in pp and pA collisions

by W.M. GEIST / IRES Strasbourg & MPI Munich

Some aspects of strangeness production in pp and pA collisions and their relation to QGP searches are first discussed. Then differential cross sections for the inclusive reactions $pA \rightarrow$ anti-p, lambda, anti-lambda, xi, anti-xi, omega, anti-omega at $p_{lab} = 30\text{-}800 \text{ GeV}/c$ are investigated in detail.

Information <http://wwwinfo.cern.ch/a/alicedoc/www/chic/>
Organisers: Y. Foka and C. Lourenço

Tuesday 28 April

DUALITY WORKSHOP

at 14.00 hrs – TH Conference Room, bld. 4

AdS supergravity interpretations of superconformal field theories

by Hervé PARTOUCHÉ / CERN-TH

We will consider relations between superconformal field theories with eight supercharges and supergravities in anti-de Sitter spaces. In three and six dimensions, the superconformal theories can be realized on M-theory branes with world-volumes sitting at orbifold singularities. In five dimensions, the enhancement of the flavour symmetry to an exceptional Lie group at the superconformal point is well described from the supergravity point of view.

Tuesday 28 April

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium, bld. 500*

TESLA: How to construct a high energy, high luminosity, 30 km long superconducting linear collider

by Björn WIIK / DESY & Univ. Hamburg

The international TESLA collaboration, centred at DESY, is now laying the foundation for the construction of a high energy e^+e^- linear collider with an integrated X-ray source. The collider, which is based on low frequency superconducting cavities, will allow us to explore centre-of-mass energies from LEP energies up to 500 GeV and beyond, with a luminosity of order $5 \times 10^{34} \text{ cm}^2\text{s}^{-1}$. After a discussion on the layout and performance of the facility, I shall focus on the efforts to provide reproducible high performance superconducting radiofrequency cavities and on the status of the TESLA Test Facility and future plans. I shall end with some comments on the possible realization of the TESLA facility.

Organiser : Jasper KIRKBY / EP Division

* Tea & coffee will be served at 16.00 hrs.

Vous pouvez aussi consulter

For information on these seminars, please see

<http://wwwas.cern.ch/Bulletin/Seminars/current.html>

Wednesday 29 April

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room, bld. 4

Universality of low-energy scattering in 2+1 dimensions

by André MARTIN / CERN-TH

We prove that in 2+1 dimensions scattering the S wave phase shift behaves either like $\pi/2 / \ell n(k)$ or is $O(k^2)$, in potential scattering, axiomatic field theory, and resummed perturbation theory for $\lambda(\phi)^4$.

Thursday 30 April

THURSDAY SEMINAR

at 14.00 hrs – TH Conference Room, bld. 4

Wrapped branes, seifert manifolds and confined momentum

by C. SCHMIDHUBER / Bern University

We present string-like soliton solutions of three-dimensional gravity, coupled to a compact scalar field x^{11} and Kaluza-Klein reduced on a circle. These solitons carry fractional magnetic flux with respect to the Kaluza-Klein gauge field. These "Kaluza-Klein flux tubes" are argued to have two interesting properties:

1. They change the three-dimensional topology by performing "Dehn surgery" on it. Summing over flux tubes implies summing over a certain subclass of three-dimensional topologies (Seifert manifolds).
2. Condensation of flux tubes implies an area law for the Wilson loop of the Kaluza-Klein gauge field; the confined charge is nothing but Kaluza-Klein momentum.

Applied to the membrane of M-theory, point 2 is interpreted as "dynamical wrapping" of the M-brane around its eleventh embedding dimension x^{11} .

Thursday 30 April

CERN COLLOQUIUM

at 16.30 hrs – Auditorium, bld. 500*

Spooky action under Geneva : violation of Bell's inequality by photons 10 km apart

by Nicolas GISIN / University of Geneva

Maintaining the quantum coherence between particles over long times and distances is relevant for several distinct different reasons:

1. it is a pre-request for the promising field of quantum information processing,
 2. it can already be used for quantum cryptography,
 3. it confronts us with the subtleties of quantum nonlocality.
- In this colloquium, experiments on photon pairs in telecom optical fibres will be presented and discussed in the light of the above-mentioned motivations.

Organiser : Luigi Di Lella / EP Division

* Tea & coffee will be served at 16.00 hrs.

Monday 4 May

ISOLDE EXPERIMENTS COMMITTEE

at 14.00 hrs – Council Chamber, bld.503

Open session

1. Introductory remarks by the Chairman.
2. Progress report by the ISOLDE Technical Group Leader.
3. ISOLDE Coordinator's report.
4. Proposal: Lattice location of transition metals in semiconductors; U. Wahl; ISC 98-9/P98.
5. Addendum to Proposal IS342: Emission channeling studies on the behaviour of light alkali atoms in wide-band-gap semiconductors; H. Hofssäss; ISC 98-10/P62 Add.2.
6. Proposal: Study of the unbound nuclei ^{10}Li and ^7He at REX ISOLDE; B. Jonson; ISC 98-11/P100.
7. Proposal: Acceptors in II-VI Semiconductors - Incorporation and Complex Formation; T. Wichert; ISC 98-12/P101.
8. IS345: Nuclear, electrical and optical studies of hydrogen in semiconductors, A. Burchard; ISC 98-14/P65 Add.2.

Closed session

after the Open Session, 6th Floor Conference Room,
Main Building.

Monday 4 May

CERN HEAVY-ION FORUM

at 15.30 hrs – bld. 160/1-009

Quantum Transport Description of Particles with Broad Mass

by J. KNOLL / GSI

First some known properties of particles with broad mass width, like resonances, are reviewed. We discuss the properties at equilibrium and in the dilute density limit (Virial limit). From there it is argued that the present transport models are not adequate to properly deal with the problems arising at broad mass width conditions. Some of the features of a quantum transport theory which we have recently derived within non-equilibrium quantum field theory [1] will be presented.

The picture goes beyond common transport schemes. It unifies the description of resonances, which have a width already in vacuum, with all other particles, which obtain a widths from collision, decay or creation processes in matter. It accounts for quantum coherence features that strongly modify the in-medium rates, in particular for the soft modes with energies and momenta comparable or smaller than the scale set by the damping Γ [2]. Likewise polarization effects in terms of drag and back flow or time delays are included. The resulting dynamical equations are conserving and thermodynamically consistent. If not applicable immediately, the theory permits adequate and consistent quantum improvements of the in-medium rates in transport simulation codes presently applied to high energy nuclear collisions.

[1] Y. Ivanov, J. Knoll, D. N. Voskresensky: *in preparation for Phys. Rep. C*;

[2] J. Knoll, D. N. Voskresensky, *Ann. Phys.* 249 (1996) 532.

Tuesday 5 May

OPEN ISOLDE COLLABORATION MEETING

at 09.00 hrs – Council Room, bld. 503

- 09.00 Introduction
ISOLDE LSF and ISCC matters
G. Huber, Univ. Mainz
- 09.20 A NUPECC working group for radioactive beam facilities
H. Ravn, CERN-EP
- 09.50 How to use ISOLDE?
T. Nilsson, CERN-EP
- 10.05 Automatic Beam Steering – an option for ISOLDE?
M. Lindroos, CERN-PS
- 10.30 *Coffee break*
- 11.00 REX-ISOLDE Physics - first experiments and perspectives
D. Habs, LMU Munich
- 11.30 COMPLIS – charge radii of very n-deficient Pt isotopes
F. Le Blanc, IPN Orsay
- 12.00 Laser isotope and isomer separation of heavy Ag nuclides including the r-process waiting-point isotope Ag-129
K.-L. Kratz, Univ. Mainz
- 12.30 From the independent particle model towards shell-model Monte-Carlo methods: where are the limits
K. Heyde, Univ. Gent

Wednesday 6 May

COMPUTING SEMINAR

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

Delphi Tools for Data Management

by J.D. DURAND / CERN-EP

Delphi data management tools are presented. These applications have as input a FATMEN database, often optimised for "reversed" queries of it. The main uses are:

- to search the database quickly for given data (tape number, FATMEN Delphi keywords),
- to find which data sets contain particular events (for the event server),
- to ease the general data management (what are the most used datasets, staging area optimisation, media type requests).

High speed and efficiency was achieved in all these areas.

Organiser : G.Folger / IT

Thursday 7 May

LARGE HADRON COLLIDER COMMITTEE

Open Session

at 09.00 hrs – Council Chamber, bld.503

- 09.00–10.45 CMS Tracker Technical Design Report
- 10.45–11.15 *Coffee break*
- 11.15–12.15 CMS status report
- 12.15–13.15 ATLAS status report

Thursday 7 May

LHC PROJECT SEMINAR

at 14.15 hrs – LHC Auditorium, bld. 30/7th floor

The LHC Arc Quadrupoles and their Short Straight Sections

by P. ROHMIG & T. TORTSCHANOFF / CERN-LHC

The LHC lattice foresees in its present design 392 quadrupole magnets of which twelve will be of increased magnetic length. The development of these magnets has been the subject of a close collaboration with CEA-Saclay which started already in 1989 and was invigorated in February 1996 by the signature of a collaboration protocol between CEA, CNRS and CERN as part of the exceptional French contribution to the LHC project. The new quadrupole cold masses, presently under preparation, have the corrector magnets attached to each end of the quadrupole magnets. On the connection ends these correctors will be octupole magnets, trim or skew quadrupoles, on the opposite end will be the combined chromaticity sextupole and orbit corrector dipoles. The cryostats, now under development in collaboration with CNRS, will be of a similar design as those for the main dipole magnets. However, on one end they will be equipped with the technical service modules of which every second will be featuring the jumper connection to the external cryogenic feed line. The speakers will not only describe the two forthcoming prototypes and their auxiliary equipment, like protection diodes, main and auxiliary bus-bars and their interconnections, the beam position monitors, beam screens, helium heat exchanger tube, phase separators, pressure plugs, vacuum barrier, instrumentation, etc. but also point out the multiple variants needed for the machine resulting from the different combinations of magnets and cryogenic equipment. A short outlook for the strategy of the procurement of the series units will be given.

Thursday 7 May

SL SEMINAR

at 16.00 hrs* – SL Auditorium, bld. 864

The LEP Spectrometer Project

by Bernd DEHNING & Mike HILDRETH / CERN

The LEP beam energy calibration is based on the resonant depolarization technique. Because this method is not directly applicable at the LEP 2 energies, the beam energy is calibrated between 41 and 55 GeV. An extrapolation to the

LEP 2 energies is then performed using magnetic methods based on the existing Flux-loop and NMRs.

A new spectrometer is proposed as an additional independent method to measure the beam energy at LEP 2 physics energies. This is based on the measurement of the bending angle of a single LEP dipole magnet using precision beam orbit monitors and on the accurate knowledge of the integrated dipole field.

The spectrometer is designed to determine the beam energies with a relative precision of 0.0001 (10 MeV at 100 GeV beam energy).

The method will be described, the required accuracies will be estimated and the test setup, for 1998 operating period will be shown.

* *Tea and coffee will be served at 15.30 hrs in front of the Auditorium.*

POUR INFORMATION / FOR INFORMATION

UNIVERSITY OF GENEVA

Particle Physics Department

24, quai Ernest-Ansermet , 1211 Geneva 4

Tel. 022 702 6273, Fax 022 781 2192

Mercredi 6 mai

SÉMINAIRE DE PHYSIQUE CORPUSCULAIRE

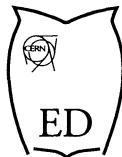
à 17.00 h – Auditoire Stückelberg

Le programme expérimental de CEBAF... vu de France
par Michel GARÇON / SPHN, Saclay, France

Un panorama des activités des laboratoires français auprès de l'accélérateur CEBAF (Laboratoire Jefferson, Etats Unis) sera présenté. Ces activités couvrent quatre grands programmes : structure du proton avec la diffusion Compton virtuelle et avec l'extraction des facteurs de forme faibles, production de mésons vecteurs (en particulier le phi) et structure électromagnétique du deuton. Elles se repartissent dans les trois Halls expérimentaux de CEBAF.

L'état d'avancement de ces programmes sera détaillé, ainsi que leurs perspectives d'extension. En particulier l'expérience dite t20, dont le but est la séparation des facteurs de forme monopolaire et quadrupolaire du deuton, est maintenant terminée. Des résultats préliminaires seront présentés.

EDUCATION SERVICES EDUCATIFS



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

LECTURE SERIES

4, 5, 6, 7 & 8 May

11.00 to 12.00 hrs – Auditorium

Introduction to superconductivity

by P. DARRIULAT / CERN-EP

The lecture series will address physicists, such as particle and nuclear physicists, familiar with non-relativistic quantum mechanics but not with solid state physics. The aim of this introduction to low temperature superconductivity is to give sufficient bases to the student for him/her to be

ENSEIGNEMENT ACADEMIQUE ACADEMIC TRAINING

F. Benz Secretariat ☎ 73127
francoise.benz@cern.ch

able to access the scientific literature on this field. The five lectures will cover the following topics :

1. Normal metals, free electron gas, chambers equation
2. Cooper pairs, the BCS ground state, quasi particle excitations
3. DC superconductivity, Meissner state, dirty superconductors
4. Self consistent approach, Ginsburg Landau equations, Abrikosov fluxon lattice
5. Josephson effects, high temperature superconductivity

PLACES DISPONIBLES PLACES AVAILABLE

Plusieurs cours prévus peuvent encore accueillir quelques participants. Vous les trouverez dans la liste ci-dessous.

Some places are still available in forthcoming courses. These courses are indicated underneath.

Programming in JAVA level 1 – 2 days	4-5.5.98
Programming in JAVA level 2 – 3 days	6-8.5.98
Programmation en JAVA niveau 2 – 3 jours	18-20.5.98
Objectivity /DB for C++ Developers – 3 days	26-28.5.98
An Overview of the JAVA programming language – 1 day	2.6.98
Introduction au PC du CERN avec Windows 95 – 4 demi-journées	23-26.6.98

Si vous désirez participer à l'un de ces cours, inscrivez-vous électroniquement en direct depuis les pages de description des cours dans le Web que vous trouvez à l'adresse :

<http://www.cern.ch/Training/>
ou remplissez une "demande de formation" disponible auprès du Secrétariat de votre Division ou de votre DTO (Délégué divisionnaire à la formation). Les places seront attribuées dans l'ordre de réception des inscriptions.

If you wish to participate to one of these courses, please apply electronically directly from the course description pages that can be found on the Web at : <http://www.cern.ch/Training/> or fill in an "application for training" form available from your Divisional Secretariat or from your DTO (Divisional Training Officer). Applications will be accepted in the order of their receipt.

ENSEIGNEMENT TECHNIQUE TECHNICAL TRAINING

Monique Duval ☎ 74460
monique.duval@cern.ch

DAMAGE MECHANICS

Didier Marquis – CERN &
Ecole Normale Supérieure de Cachan

The basic notions and concepts of Continuum Damage Mechanics (CDM) are presented. The objective of CDM is to take into account in mechanical analysis of structures the influence of progressive degradation due to different loading (creep, fatigue, plasticity,etc.). CDM allows to determine for a structure :

- the residual strength
- the conditions for crack initiation
- the residual stiffness
- the life duration

The programme of the sessions will be devoted to :

- 30.4.1998** : Introduction to CDM. Mechanisms of damage
14.5.1998 : Evaluation and measurements of damage. Scalar and tensorial damage variables
28.5.1998 : Introduction of damage in a constitutive law. Evolution laws for brittle, creep, ductile, fatigue damages.
4.6.1998 : Structural analysis with damage mechanics. Statistical approach to rupture.

All sessions will take place as follows :

from 11.00 to 12.00 in room 11, barrack 593

These sessions are free of charge and no prior application is needed

INFORMATIONS GÉNÉRALES GENERAL INFORMATION

PUBLICATION DU BULLETIN HEBDOMADAIRE POUR LE 1^{ER} MAI Bulletin no 19/98

Le vendredi 1^{er} mai étant férié, les articles à insérer dans le prochain Bulletin (no 19/98), paraissant le jeudi 30 avril (et couvrant la semaine du lundi 4 mai) devront nous parvenir un jour plus tôt qu'à l'accoutumée, soit le lundi 27 avril à midi.

Merci de votre coopération.

Section Media & Publications
Tél. 73475

WEEKLY BULLETIN PUBLICATION 1ST MAY Bulletin No 19/98

As Friday 1st May is a Holiday, material for publication in next Weekly Bulletin (No 19/98), to appear on Thursday 30 April (covering the week of Monday 4 May) should reach us one day earlier than usual, i.e. by noon on Monday 27 April.

Thank you for your cooperation.

Media & Publications Section
Tel. 73475

SERVICE RESTREINT AUX RESTAURANTS VENDREDI 1^{ER} MAI 1998

Vendredi 1^{er} mai étant officiellement férié au CERN, les restaurants no. 2 (DSR : bâti. 504 – Meyrin) et no. 3 (Générale de Restauration : bâti. 866 – Prévessin) seront fermés dès 18h00 jeudi 30 avril. Ils rouvriront lundi 4 mai à 06h30 (rest. no. 2) et à 07h00 (rest. no. 3).

Le 1^{er} mai, un service restreint sera assuré au restaurant no. 1 (COOP : bâti. 501 – Meyrin) de 08h00 à 21h00. Des repas chauds seront servis de 11h30 à 14h00 et de 18h00 à 19h30.

Les deux kiosques (bâts. 501 et 504) seront fermés le 1^{er} mai.

Comité de Surveillance des Restaurants
Tél. 77551

LIMITED RESTAURANT SERVICE FRIDAY 1ST MAY 1998

As Friday 1st May, is an official CERN holiday, restaurants no. 2 (DSR : bld. 504 – Meyrin) and no. 3 (Générale de Restauration : bld. 866 – Prévessin) will be closed as from Thursday 30 April at 18.00 hrs. They will reopen on Monday 4 May at 06.30 hrs (rest. no. 2) and at 07.00 hrs (rest. no. 3).

On 1st May, a limited service will be provided by restaurant no. 1 (COOP : bld. 501 – Meyrin) from 08.00 to 21.00 hrs with hot meals served from 11.30 to 14.00 hrs and from 18.00 to 19.30 hrs.

Both kiosques (blds. 501 and 504) will be closed on 1st May.

Restaurant Supervisory Committee
Tel. 77551

TAPE USER MEETING

Despite growing use of Central Data Recording (CDR) and the probable deployment of the High Performance Storage System (HPSS) at CERN, it is not yet possible to completely ignore the role played by the underlying tape media and the associated automated or manual drives.

Experimental groups and users are therefore invited to a meeting of tape users on Thursday 30 April, 10.00-12.00 hrs, in the IT Auditorium (building 31, 3rd floor). The agenda will include:

1. Status and plans for automated libraries and associated drives
2. Status and plans for migration of 'old' media (3480, 3490)
3. Status and options for the tape archive, presently in building 186
4. Options for 'exchange media' used in data import/export
5. Options for 'user tapes'
6. AOB

C.Curran/R.Minchin IT/PDP (tape.support@cern.ch)

NETSCAPE ANNOUNCEMENT

We would like to inform you that the availability of the well known "Netscape" software will be modified to match the latest validated versions on all Central Computing Services maintained by IT Division as of

TUESDAY 5 MAY 1998

This decision follows the publication of the "Deployment Strategy of Netscape at CERN" (CERN Computer Newsletter 229, http://consult/cnl/229/art_nets.html), the completion of our internal tests and the approval by the Desktop Forum Committee at its meeting of March 26th, 1998.

The essence of the modifications are:

- retaining version 2.02 as the last "Light" release, good on machines/workstations with modest resources
- the definitive phasing out of version 3
- the introduction of 4.04 as the currently "Certified" version on all operating systems (although the latest versions will eventually be made available for testing and developers who require the most recent features)

You may find below additional details on the platform(s) of interest to you. Please address all kind of general support questions or problem reports while using this software to Web.Support@cern.ch.

A reminder will anyhow be issued by the end of April, at which time we may revise some of the statements in the light of the current situation.

Miguel Marquina / IT Division – User Support

NICE

The only Netscape components supported on this platform are "Navigator" (the browser) and "Messenger" (the mail agent) at the time of press.

The "More Applications:World Wide Web" area will therefore offer two icons: "Netscape" and "Netscape/mail", matching respectively the components referred to above.

Netscape 2 (Light) and Netscape 3 will be moved to the "Old Applications" area and will be left there while they still operate. The first will be supported as long as it does not conflict with other software products; the second will be left without support of any kind.

A "Test/New Applications" area will eventually be offered with the latest version of Netscape available at this service.

UNIX

This section refers to all Central Unix Services (PLUS, WGS) and any other systems with access to the ASIS software repository.

The only Netscape component supported on this platform is "Navigator" (the browser) at the time of press. Please refrain from using the "Messenger" mail agent until further notice, since the software has not proven to be stable enough to be fully deployed in combination with the Mail Service. Please see CNL 230, http://consult/cnl/230/art_netsc4.html.

Version 2 will be retained and supported (so far it is binary-compatible with the corresponding operating system), version 3 will be left "as is" without support of any kind.

The following commands should be used to invoke the relevant versions:

Version	Command
Certified	netscape
Light	netscape -version light
	netscape -version 2
Test/New	netscape -version test
	netscape -version new
3	netscape -version 3

(without validation)
(forthcoming certified)

MACINTOSH

Keeping in mind the general considerations made above, Macintosh users may freely choose to install any of the versions available through the Mac Application server "NOVELL:Srv0_Nice:Srv0_Nice.MACPGM:Install Applications".

Current installers are:

Version	Installer
---------	-----------

Certified	Install Netscape
Light	Install Netscape 2 (Light)
Test	Install Netscape Test

INFORMATION

Les informations paraissant sous cette rubrique sont publiées sous la seule responsabilité de l'Association du personnel du CERN.

The information presented under this heading is published under the sole responsibility of the CERN Staff Association.

Association
du personnel
CERN

Staff
association
CERN

STAFF_ASSOCIATION@MACMAIL.CERN.CH

Adresse AP sur le WEB
<http://www-staff-assoc.cern.ch/>

IMPORTANTES ELECTIONS AU CONSEIL DU PERSONNEL

Le mandat de la moitié des délégués au Conseil du personnel se termine cette année. L'autre moitié sera renouvelée l'an prochain. Les délégués élus (ou réélus) cette année et l'année prochaine seront ceux qui participeront à l'ensemble du processus de la révision quinquennale de nos conditions d'emploi. Les nombreuses et importantes questions qui seront discutées touchent à tous les domaines relatifs à nos conditions d'emploi et à notre protection sociale. **Tous les membres du personnel** sont concernés par ces sujets.

L'Association du personnel a besoin de vos idées et de votre aide, quels que soient votre âge et votre catégorie de membre du personnel.

Présentez-vous aux élections, participez aux travaux!

Les personnes qui ne sont pas encore membres de l'Association du personnel et qui désirent faire acte de candidature doivent adhérer avant le **30 avril 1998**.

N'hésitez pas à passer au Secrétariat, bâtiment 64, R-010, ou appelez le 74224 ou 72819, pour recevoir les documents en question.

Vous trouverez ci-après le calendrier des élections ainsi que le formulaire de candidature.

* * * * *

IMPORTANT ELECTIONS TO THE STAFF COUNCIL

The mandate of half the Delegates of the Staff Council will come to an end this year. The other half will be renewed next year. The delegates elected or (re-elected) this year and next year will both be participating in the five-yearly review of our employment conditions. The numerous and important questions which will be discussed concern all the aspects affecting our employment conditions and our social welfare. These questions concern **all staff members**.

The Staff Association needs your ideas and your help whatever your age and category of member of the personnel.

Stand for election - Take part in the work

Those who wish to stand for election, but who are not yet members of the Staff Association must join before **30 April 1998**.

Please do not hesitate to pass by the Secretariat, building 64, R-010, or phone to 74224 or 72819, to get the relevant documents.

Please find hereafter the timetable for the 1998 elections as well as the form to fill in to stand for election.

Calendrier des élections au Conseil du personnel

1998

Calendrier des élections	Timetable elections
A partir du Bulletin hebdomadaire du 6 avril, affiches, etc. appel aux candidatures	Starting with the Weekly Bulletin of 6 April, posters, etc. call for applications
Jeudi 30 avril, à 12h00 clôture du dépôt des candidatures	Thursday 30 April, at noon closing date for receipt of the application forms
Mardi 19 mai, expédition des bulletins de vote	Tuesday 19 May dispatch of ballot papers
Vendredi 5 juin, à 12h00 délai de réception des bulletins de vote	Friday 5 June, at noon closing date for the receipt of the ballot papers
Mardi 9 juin, à 9h00 dépouillement public des bulletins de vote, dans la Salle de Conférence de l'Association du personnel, Bât. 61, R-021	Tuesday 9 June, at 9.00 a.m. public counting of votes in the Staff Association Conference Room, Bldg. 61, R-021
Vendredi 12 juin, publication des résultats dans le Bulletin Assises de l'Association	Friday 12 June, publication of the results in the Weekly Bulletin Staff Association Assizes
Mardi 23 juin, à 14h00 première réunion du nouveau Conseil du personnel et élection du nouveau Comité exécutif	Tuesday 23 June, at 2.00 p.m. first meeting of the new Staff Council and election of the new Executive Committee

ACTE DE CANDIDATURE/APPLICATION

Je présente ma candidature pour les élections au Conseil du personnel
I would like to stand for the elections to Staff Council

Nom/Name:

Prénom/First Name:

Division:

Secteur/Sector:

Collège électoral/Electoral college:

Je m'engage, si je suis élu(e), à prendre une part active aux travaux du Conseil et à défendre au mieux de mes possibilités les intérêts de l'ensemble du personnel de l'Organisation.

Mes motivations pour me presenter à un poste de délégué au Conseil du personnel sont les suivantes:

If I am elected, I undertake to participate actively in the work of the Council, and to defend the interests of all staff of the Organization to the best of my ability.

The reasons why I present my application for a post in the Staff Council are the following:

Date: **Signature:**

Contrôlé par/Checked by:

**Délégués élus en 1997 pour deux ans
et le nombre de postes à pourvoir cette année**

Secteur Collège électoral	Nom/Prénom/Division	Secteur Collège électoral	Nom/Prénom/Division
ACC A	GIANNINI Roberto/PS HASEROTH Helmut/PS 5 postes sont à pourvoir	RECH A	BENOT Michel/EP BORGHINI Michel/EP DEFERT Philippe/IT SEIS Irene/IT 2 postes sont à pourvoir
ACC B	ARN André/LHC DEHAVAY Claude/LHC DIAZ MONTOYA Juan/AC GAILLARD-GRENADIER Bernard/LHC MAIO Susan/LHC PERRIER Jean-Claude/PS VITASSE Michel/SL 4 postes sont à pourvoir	RECH B	
ACC C	1 poste est à pourvoir	RECH C	1 poste est à pourvoir
ADMA	2 postes sont à pourvoir	TECH A	WEISZ Sylvain/EST 1 poste est à pourvoir
ADMB	COLLOMB Raymond/FI 2 postes sont à pourvoir	TECH B	BOFFARD Michel/ST MERLINO Angelo/TIS 5 postes sont à pourvoir
ADMC	FROMM Christine/PE	TECH C	ANTOINET Gérard/TIS 2 postes sont à pourvoir

Délégués sortants

Secteur Collège électoral	Nom/Prénom/Division	Secteur Collège électoral	Nom/Prénom/Division
ACC A	BROUZET Etienne/SL DEKKERS Daniel/PS FRANDSEN Poul/LHC GHINET François/SL	RECH A	GOOSSENS Michel/IT MATHEYS Jean-Pol/EP
ACC B	BARTHELEMY René/PS BOIMOND Daniel/PS CARLIER Jean-Claude/SL GUILLOT Jean-Claude/SL	RECH B	BONNET Michel/EP BROZZI Delecурго/EP DREESEN Peter/EP MOMEUX Guy/EP
ADMA	BALL Derek/AS HENTSCH Guy/DSU	TECH A	STREIT-BIANCHI Marilena/TIS ZANASCHI Carlo/EST
ADMB	AYMON Marcel/PE PERLEMOINE Claude/AS	TECH B	
ADMC	LEFEVRE Christiane/AS	TECH C	

CLUBS

SKI CLUB



Assemblée Générale du Club

Amis skieurs, la saison 1997-1998 est terminée. Retrouvons nous pour notre Assemblée Générale annuelle

le jeudi 14 mai à 18h00

Amphithéâtre de la Théorie - bâtiment 4/3-006

Tous les moniteurs et membres sont les bienvenus. Un appétitif sera offert au restaurant no.1 (COOP).

L'ASSOCIATION DU PERSONNEL

Des bons de réduction pour le gala

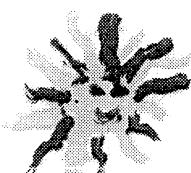
The Shaoling Kung Fu of China

Centre Sportif des Vernets
mardi 28 avril 1998 à 20h30

SYLVIA

Grand Casino
mercredi 22 avril 1998 à 20h30

sont disponibles au secrétariat de l'Association du personnel



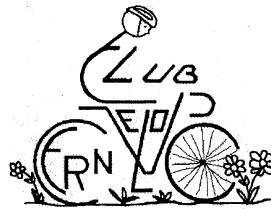
JARDIN D'ENFANTS

Conférence sur
"Les peurs chez l'enfant"
présentée par Mme. Yakoubian

le mercredi 6 mai 1998

à 20h00

Salle du conseil



VELO CLUB

Après le mauvais temps de ces dernières semaines - ce qui n'a pas empêché certain(e)s de nos membres de rouler - le Club part pour un petit tour vers Dully (VD), le **samedi 25 avril à 14h00**, depuis la **piscine de Ferney-Voltaire**. La distance augmente doucement, 59 km, la dénivellation reste modeste avec 210 m. Un parcours court est prévu.

Les non membres du Club sont les bienvenu(e)s pour rouler avec nous !

Le **samedi 2 mai**, une trentaine de nos membres seront en Sardaigne, pour parcourir, sous un ciel azur et un soleil rayonnant, des centaines de kilomètres pendant une semaine.

Les gens, qui ont dû rester au bout du Lac Leman, se donnent rendez-vous à **14h00 à la piscine de Ferney**, pour une excursion longeant la côte vaudoise. Le circuit normal porte sur 61 km, le raccourci sur 48 km. La sortie est considérée relativement facile.

GROUPEMENT DES ANCIENS DU CERN

La prochaine permanence du Groupement des Anciens du CERN se tiendra

**le Mardi 5 mai 1998
de 14h00 à 17h00**

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

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



CLUB DE YOGA

Cours de Sophrologie

Madame Danielle Doll, docteur en médecine, sophrologue agréé, ayant suivi une formation complète reconnue par Monsieur Caycedo, propose pour le 2ème trimestre 1998 les cours suivants: **les jeudis 30 avril, 7 mai, 14 mai, 28 mai, 4 juin, 11 juin, 18 juin et 25 juin.**

Cours pour débutants: de 12h00 à 12h55 - 8 séances pour CHF 96.- (+CHF 5.- d'inscription au Club de Yoga). **Objectifs:** apprendre à se relaxer, gérer le stress quotidien, être mieux dans sa peau, plus positif. La sophrologie est une technique simple et efficace que chacun peut utiliser selon ses besoins et ses disponibilités.

Cours pour avancés: pour ceux qui ont déjà suivi un cours de sophrologie. Cours à thème: de 13h00 à 13h50 - 8 séances pour CHF 96.- (+CHF 5.- d'inscription au Club de Yoga). **Objectifs:** utiliser la sophrologie pour développer certaines capacités. Les thèmes sont abordés sur un plan théorique et pratique. Par exemple: augmenter la confiance en soi, gérer les émotions, entraîner la mémoire.

Inscriptions lors de la 1ère séance, jeudi 30 avril.

Informations complémentaires:
Jean Claude Perreard, tél: 75148,
email: Jean-Claude.Perreard@cern.ch

FONDS D'ENTRAIDE

Conformément à l'Article 6 du Règlement du Fonds d'Entraide, trois membres de la Commission 1996 sont à remplacer (une démission et deux sortants). Deux d'entre eux se représentent (Claudie Nebout et Michèle Brandenburger) et une personne a fait acte de candidature (Françoise Cosse Puget).

En conséquence, il n'y aura pas d'élections cette année, ces trois personnes étant élues automatiquement.

La composition de la nouvelle Commission sera publiée dans un prochain Bulletin.

CERN WOMEN'S CLUB Mother and Toddler Group: Spring Sale

The Mother and Toddler group is organizing a spring sale on **Tuesday 28 April**.

Practically new clothes, good quality toys and baby equipment will be on sale in club room 2 of restaurant no.2, building 504 from 9.30 a.m. to 11.30 a.m. Come along and find some bargains! If you would like to have a stall, please call for further information:

Jane Veness	(059)4.50.42.04.22
Valerie Dawson	(059)4.50.40.95.28
Karen Jones	(059)4.50.42.17.98



CERN - Meyrin
Entrée B
Bâtiment 60 - Amphithéâtre

**mardi 28 avril 1998
à 20h30**

Concert
par

Marie-Jeanne TROPET
soprano

Daniel BRANDT
baryton-basse

Sylviane BAILLIF-BEUX
piano

Au programme:

DEBUSSY,
DVORJAK,
MENDELSSOHN,
RAVEL,
SCHUBERT,
SCHUMANN

RUNNING

28th Annual Relay Race around CERN

This year's race around the Meyrin site will take place on Wednesday 20 May, starting at 12.20 p.m.

Stages: 1000-800-800-500-500-300 metres.

Course: routes Bohr, Pauli, Einstein, Arago, Powell, Gregory, Bloch, Bohr, Greinacher.

The six runners in each team must belong to the same professional unit (division, group, service, experiment, project, firm), except for an Open category for teams which do not satisfy the above criterion.

This is a fun event, you do not have to run fast to enjoy it. The times for the race range from 10 to 15 minutes, and about 50 teams usually take part.

Categories:

Seniors: six runners (ladies/men), no age limits

Veterans: all six runners born in 1958 or earlier.

Open: teams invited from outside CERN or CERN runners, who are not in the same professional unit.

Dames: teams of six ladies from CERN groups.

Dames Open: as Open, but for teams of six ladies.

The winners of each category hold the respective challenge cups for one year. There are also challenge cups for:

- the best team of unpaid associates (visitors)
- the best team representing a firm working at CERN
- the first individual runner at the end of the 1000 metres
- the team finishing in a position chosen at random!

There are medals for each participant whose team finishes the race. Those in the first three teams in each category receive special medals. The registration fee is CHF 8.- per runner.

To enter, contact me (see below) stating the name of your team, the category and the contact person with his/her telephone or e-mail address.

The payment and the naming of the actual runners are to be given a few days before the race, when the numbers are collected. You will be informed about this in due course.

David Dallman/AS, tel.73825
e-mail: running.club@cern.ch

RUNNING

28ème Course à travers le CERN

Le relais pédestre sera organisé cette année le mercredi 20 mai à 12h20 (départ).

Distances: 1000-800-800-500-500-300 mètres.

Circuit: routes Bohr, Pauli, Einstein, Arago, Powell, Gregory, Bloch, Bohr, Greinacher.

Les équipes de six coureurs doivent être représentatives soit d'une division, d'un groupe, d'une expérience, d'une entreprise ou équivalent, excepté pour une catégorie "OPEN" et pour les équipes qui ne remplissent pas une des conditions mentionnées.

C'est une course populaire et conviviale. La durée de la course durent de 10 à 15 minutes avec la participation d'une 50 équipes.

Catégories:

Seniors: six coureurs (femmes/hommes), sans restriction d'âge.

Vétérans: six coureurs nés en 1958 ou avant.

Open: équipes extérieures invitées par le CERN ou coureurs du CERN, qui ne sont pas dans la même unité professionnelle.

Dames: équipes de six dames.

Dames Open: comme Open, mais pour des équipes de six dames.

Un challenge sera confié pour un an à l'équipe gagnante dans chaque catégorie. De plus, il y a les challenges pour:

- la meilleure équipe d'attachés non-rémunérés
- la meilleure équipe représentant une entreprise au CERN
- le premier coureur sur la distance de 1000 m
- l'équipe terminant dans une position choisie par tirage au sort!

Une médaille souvenir est offerte à tout participant dont l'équipe termine l'épreuve, et des médailles spéciales sont données aux membres des trois premières équipes dans chaque catégorie. Le droit d'engagement est de CHF 8.- par coureur.

Pour s'inscrire, me contacter en indiquant le nom de votre équipe, la catégorie et le nom du responsable avec son numéro de téléphone ou courrier électronique. Le paiement et les noms des coureurs sont à donner seulement quelques jours avant la course lors de la distribution des dossards, date qui vous sera communiquée en temps voulu.

FOOTBALL



Calendrier du Championnat de Football du CERN 1998

Match	Score
MFAI-FAIRBOOTS	5 - 2
CRYO-PEPPE	2 - 2
OPAL-COOPERANTS	0 - 3
CN-DELATTRE	1 - 1
THEORIE-CHALTRON	1 - 6
L3-GoZO	2 - 6
PIT8-CRYO/PS	3 - 9
MFAI-OPAL	8 - 2
PEPPE-COOPERANTS	3 - 2

Classement POULE A

Equipe	J	G	N	P	Buts		Points
MFAI	2	2	0	0	13	4	6
PEPPE	2	1	1	0	5	4	5
CRYO/PS	2	1	1	0	11	5	5
Cooperants	2	1	0	1	5	3	4
OPAL	2	0	0	2	2	11	2
Fairboots	1	0	0	1	2	5	1
PIT8	1	0	0	1	3	9	1

Classement POULE B

Equipe	J	G	N	P	Buts		Points
Chaltron	1	1	0	0	6	1	3
GoZO	1	1	0	0	6	2	3
Delattre	1	0	1	0	1	1	2
EST	1	0	1	0	1	1	2
L3	1	0	0	1	2	6	1
Theorie	1	0	0	1	1	6	1



CLUB DE RUGBY

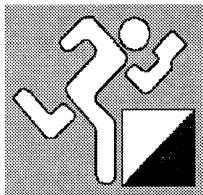
Le Rugby Club CERN bat Berne 73 à 7.

Le RC CERN recevait ce week-end l'équipe de Berne sur le terrain de St-Genis. Un match a priori facile, mais important pour la préparation aux rencontres à venir.

En effet, les Bleus ont encore devant eux les trois matches les plus difficiles du championnat, à savoir contre Neuchâtel à domicile et surtout contre Bâle et Albaladéjo à l'extérieur pour atteindre leur objectif principal de la saison, la remontée en ligue nationale A. Il serait extrêmement regrettable de commettre un faux pas si près du but alors que le RC CERN a jusqu'à aujourd'hui survolé le championnat de Ligue B et battu plusieurs équipes de Ligue A dont Yverdon en 8ème de Coupe.

Les Bleus doivent être au mieux de leur forme physique et morale afin de sortir victorieux des trois prochaines rencontres et de pouvoir se consacrer sereinement aux quarts de finale de la Coupe. Une place en finale de cette dernière couronnerait une saison exceptionnelle et semble bien à la portée des Bleus, aidés par un tirage au sort favorable qui leur évite d'avoir à affronter Hermance ou Nyon avant la finale. Mais tous ces succès espérés et mérités ne seront au rendez-vous que si chaque adversaire est respecté et pris au sérieux afin de pouvoir progresser à chaque rencontre. C'est ici que réside le danger des matches a priori facile, qui aboutissent finalement à une victoire terne, une perte de confiance et de motivation si on les prend à la légère. Mais les entraîneurs locaux avaient bien sensibilisé les Bleus aux risques d'une telle rencontre et l'ampleur du score en est la preuve : 11 essais à 1 pour un score final de 73 à 7.

Malgré une certaine fébrilité derrière, les joueurs locaux ont maintenu la pression sur leurs adversaires tout au long de la rencontre et retrouvent petit à petit leur meilleur niveau. L'objectif est de régler cela contre Neuchâtel la semaine prochaine à St-Genis afin d'être au mieux pour les 3, 4 et espérons le, les 5 rencontres, qui les mèneront en Finale et en Ligue Nationale A.



SKI CLUB - ORIENTATION

Nous vous invitons à participer à des entraînements et à des courses d'orientation. Le programme ci-dessous est adapté aux débutants et aux familles mais constitue aussi un très bon exercice pour les "chevronnés". Plusieurs parcours différents (entre 1 et 8 km) seront proposés chaque fois avec en plus un parcours jalonné pour les plus jeunes. L'inscription se fera sur place, cartes et boussoles seront disponibles.

Pour obtenir le programme complet contactez:
L. Jirdén: 75125 ou P. Gayet: 72126

Coupe de printemps
les samedis 13h30 à 15h30

Lieu indiqué depuis

25/4	Mont Mussy	la route entre Gex et Divonne
2/5	Bonmont	La Rippe
9/5	Les Granges Malval	Satigny
16/5	Bois de Merdisel	Satigny
23/5	Bonmont	La Rippe
6/6	Les Granges Malval	Satigny
13/6	Bois de Merdisel	Satigny
20/6	Bonmont	La Rippe

Coupe du soir
les mardis 18h00 à 19h00

Lieu indiqué depuis

26/5	Terrain Jakob	Stade foot de Meyrin
2/6	Bois de Merdisel	Satigny
9/6	Les Granges Malval	Satigny



SOFTBALL

Opening Day!!!

That's right! The 1998 Geneva Slow-Pitch Softball League opener will be this Sunday 26 April, at 14h00 at the Mission Field in Sunny Collex. CERN will be playing in the opening game to be hosted by a highly competitive ILO team. Batting Practice at 13h00.

CERN, rejuvenated by some promising off-season recruitment, will be seeking to win back that elusive league pennant. Don't miss the action!

Last Chance for Spring Training

One last Spring Training practice will be held this Saturday 25 April, at 14h00 at the Mission Field. CERN will be working out its fielding kinks and honing its batting skills. All players and potential players are welcome to participate.

Recruitment

It is always recruitment time for the Geneva Slow-Pitch League. Anyone interested in playing softball either with the CERN team or with any of the other teams in the league is welcome to come out to any game or practice. A map to the field can be found on the web at:

<http://Softball.cern.ch/Maps/MissionField.html>

Softball Club

The CERN Softball Club plays slow-pitch softball from March to September against other teams from the Geneva area. For more information, contact us:

- E-Mail: Softball.Club@cern.ch
- WWW: <http://Softball.cern.ch>
- Usenet: cern.softball
- Phone: +41.22.767.6965

COOPERATIVES

COOPIN (Bât. 563)



(Bât. 563)

Heures d'ouverture du magasin:

du lundi au vendredi de 13h00 à 16h30

tel : 72864 – 73637

fax : 782 07 70

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

Profitez de notre ACTION

Calculatrices HP scientifiques 48G et 48GX avec KIT de connexion PC et logiciel d'application GRATUIT.

CASIO

Calculatrice scientifique FX-82 Solar au prix de CHF 22.-; d'autres modèles en stock.

KODAK

Nouveaux prix pour les travaux photos KODAK, tarif à la baisse pour le Service Premier

NOUVEAU

Epilateurs BRAUN Silk-épil SuperSoft avec la garantie "satisfait ou remboursé" jusqu'au 31 août 1998.

Parfumerie Bettina Barty.

Lait pour le corps et gel bain/douche : divers parfums Vanilla, Peach et Musk.

Marché Voyages avec

SUNTUR-VOYAGES

Sur présentation de votre carte Interfon à Blandine, chez Suntur, vous bénéficiez d'une ristourne sur un ensemble de produits de voyage ainsi que sur les promotions suivantes :

La GRECE :

Départ de Lyon les 09, 16, 23 et 30 mai 1998. Vol + location de voiture 7 jours + 1 nuit à l'hôtel ATINEAS pour FF 2455.-, hors taxe.

La TURQUIE :

Avec le club Eldorador-MILTA à BODRUM. Départ les 03, 17 et 24 mai 1998 de Lyon. Pension complète / all inclusive pour FF 3850.-, hors taxe.

Voir les brochures été 98, qui ont été présentées à la Journée Portes ouvertes du 23 avril 1998.

RESTAURANTS

Plats conventionnés (déjeuner) semaine du 27 avril

Fixed price main courses (lunch) week of 27 April						
	No 1 - COOP Bât. 501 - Site Meyrin	No 2 - DSR Bât. 504 - Site Meyrin	No 3 - Gén. de Rest. Bât. 866 - Site Prévessin	No 1 - COOP Bldg. 501 - Meyrin Site	No 2 - DSR Bldg. 504 - Meyrin Site	No 3 - Gén. de Rest. Bldg. 866 - Prévessin Site
Lundi-vendredi Samedi Dimanche	Heures d'ouverture: 07h00 - 01h00 07h00 - 23h00 Repas servi: 11h30-14h00 18h00-20h00 Prix (FF): a) 7.40 FF b) 8.70 FF	Heures d'ouverture: 06h30 - 18h00 Fermé sauf groupes Repas servi: 11h30-14h00 Prix (FF): a) 7.90 FF b) 8.70 FF	Heures d'ouverture: 07h00 - 18h00 Fermé Repas servi: 11h30-14h00 Prix (FF): a) 21.50 FF b) 25.00 FF	Heures d'ouverture: 07h00 - 18h00 Fermé Repas servi: 11h30-14h00 Prix (CHF): a) 7.40 CHF b) 8.70 CHF	Opening times: 06h30 - 18h00 Closed except for groups Meals served: 11h30-14h00 Prices (CHF): a) 7.60 CHF b) 8.70 CHF	Opening times: 07h00 - 01h00 07h00 - 23h00 Closed Meals served: 11h30-14h00 Prices (CHF): a) 21.50 CHF b) 25.00 CHF
Lundi	a) Cordon bleu de poulet Cornettes - Jardinière b) Sauté de bœuf Pommes mousseline Pois mangentout TOUS LES JOURS GRILLADES ET SEMAINE POISSON	a) Risotto au poulet et crevettes roses Salade verte b) Saucisse de porc à rôtir sauce aux oignons Pommes frites Tomate provençale	a) Filet de hoki pané b) Rôti de dinde Pommes vapeur Choux de bruxelles Ratatouille TOUS LES JOURS GRILLADES ET PIZZA	Monday a) Breaded slice of chicken "Cordon bleu" - Pasta Diced vegetables b) Beef stew Mashed potatoes Snow peas EVERY DAY GRILL & WEEK OF THE FISH	Monday a) Breaded slice of chicken "Cordon bleu" - Pasta Diced vegetables b) Beef stew Mashed potatoes Snow peas EVERY DAY GRILL & WEEK OF THE FISH	Monday a) Breaded slice of chicken "Cordon bleu" - Pasta Diced vegetables b) Beef stew Mashed potatoes Snow peas EVERY DAY GRILL & WEEK OF THE FISH
Mardi	a) Brochette de chipolata de veau Gratin de pâtes Carottes b) Épaule d'agneau sautée Graines de couscous Courgettes	a) Filet de perche du Nil meunière Pommes vapeur Salade verte b) Sauté de cheval bordelaise Pâtes au beurre Ratatouille	a) Gratin de pâtes au jambon b) Filet de cabillaud Pâtes Petits pois au lard Salade verte	Tuesday a) Small sausages kebab Baked pasta Carrots b) Sautéed shoulder of lamb Couscous Courgettes	Tuesday a) Nile perch fillet Boiled potatoes Green salad b) Horse meat with red wine sauce Buttered pasta Ratatouille	Tuesday a) Small sausages kebab Baked pasta Carrots b) Sautéed shoulder of lamb Couscous Courgettes
Mercredi	a) Émincé de dinde aux champignons Spirettes Petits pois b) Côtes de porc panée Pommes en dés Ratatouille	a) Langue de veau sauce tomate Riz créole Salade verte b) Poulet rôti Pommes sautées Haricots verts au beurre	a) Omelette campagnarde b) Pintade aux pruneaux Pommes frites Haricots verts Gratin de choux-fleurs	Wednesday a) Sliced turkey with mushroom Pasta Peaches b) Breaded pork chop Sautéed potatoes Ratatouille	Wednesday a) Veal tongue with tomato sauce Creole rice Green salad b) Roast chicken Sautéed potatoes Buttered green beans	Wednesday a) Sliced turkey with mushroom Pasta Peaches b) Breaded pork chop Sautéed potatoes Ratatouille
Jeudi	a) Épaule de porc rôtie Rösti Tomate b) Rôti de veau Pâtes Epinards	a) Hachis Parmentier Salade verte b) Pavé de flétan à l'oseille Riz pilaf Epinards en branches	a) Foie de gésinse persillé b) Sauté de porc aux olives Pommes Purée Épinards Printanière de légumes	Thursday a) Roast shoulder of pork Swiss hash brown Potatoes Tomato b) Roast veal Pasta Spinach	Thursday a) Roast shoulder of pork Swiss hash brown Potatoes Tomato b) Roast veal Pasta Spinach	Thursday a) Roast shoulder of pork Swiss hash brown Potatoes Tomato b) Roast veal Pasta Spinach
Vendredi	SERVICE WEEK-END					Friday 1er MAI
						WEEK-END SERVICE 1st MAY

Calendrier hebdomadaire

1998

Weekly Calendar

1^{er} mai

Lundi Monday	27.4	Mardi Tuesday	28.4	Mercredi Wednesday	Jeudi Thursday	29.4	Vendredi Friday	1.5
Auditorium / bld. 500 Amphithéâtre / bld. 500	TH Theory Conference Room / bld. 4 Salle Théorie / bld. 4	DG 6th Floor Conference Room, bld. 60 Salle de conférence du 6 ^e étage, bld. 60	IT IT Auditorium - bld. 31/3-004 & 5 Amphithéâtre II - bld. 31/3-004 & 5					
C Council Chamber / bld. 503 Salle du Conseil / bld. 503								
LHC LHC Auditorium / bld. 30, 7 th floor Amphithéâtre LHC / bld. 30, 7 th étage								
M Microcosm Conference Room, bld. 33/R-09 Salle de Conférence Microcosm, bld. 33/R-09								
PS PS Auditorium / bld. 6, 2 nd floor Amphithéâtre PS / bld. 6, 2 nd étage								
SL SL Auditorium - Prévessin / bld. 864, 1 st fl. Amphithéâtre SL - Prévessin / bld. 864, 1 ^{er} ét.								
15.30 CERN HEAVY-ION FORUM Strangeness in pp and pA collisions by W.M. GEIST / IRES Strasbourg and MPI Munich Conference Room, bld. 160/I-009	▼	14.00 DUALITY WORKSHOP TH AdS supergravity interpretations of superconformal field theories by Hervé PARIOTCHE / CERN-TH	14.00 THEORETICAL SEMINAR TH Universality of low-energy scattering in 2+1 dimensions by André MARTIN / CERN-TH	14.00 THURSDAY SEMINAR TH Wrapped branes, seifert manifolds and confined momentum by C. SCHMIDHUBER / Bern University	14.00 CERN COLLOQUIUM A Spooky action under Geneva: violation of Bell's inequality by photons 10 km apart by Nicolas GISIN / University of Geneva	14.00 CERN COLLOQUIUM A Spooky action under Geneva: violation of Bell's inequality by photons 10 km apart by Nicolas GISIN / University of Geneva	14.00 CERN COLLOQUIUM A Spooky action under Geneva: violation of Bell's inequality by photons 10 km apart by Nicolas GISIN / University of Geneva	14.00 CERN COLLOQUIUM A Spooky action under Geneva: violation of Bell's inequality by photons 10 km apart by Nicolas GISIN / University of Geneva
15.30 ISOLDE EXPERIMENTS COMMITTEE Open session	►	14.00 ACADEMIC TRAINING C Introduction to superconductivity (1/5) by Pierre DARRIULAT / CERN-EP	14.00 ACADEMIC TRAINING C Introduction to superconductivity (2/5) by Pierre DARRIULAT / CERN-EP	14.00 ACADEMIC TRAINING C Introduction to superconductivity (3/5) by Pierre DARRIULAT / CERN-EP	14.00 ACADEMIC TRAINING C Introduction to superconductivity (4/5) by Pierre DARRIULAT / CERN-EP	14.00 ACADEMIC TRAINING C Introduction to superconductivity (5/5) by Pierre DARRIULAT / CERN-EP	14.00 ACADEMIC TRAINING C Introduction to superconductivity (6/5) by Pierre DARRIULAT / CERN-EP	14.00 ACADEMIC TRAINING C Introduction to superconductivity (7/5) by Pierre DARRIULAT / CERN-EP
15.30 CERN HEAVY-ION FORUM Quantum Transport Description of Particles with Broad Mass by J. KNOLL / GSI Conference Room, bld. 160/I-009	►	16.00 COMPUTING SEMINAR IT Delphi Tools for Data Management: by J.D. DURAND / CERN-EP	16.00 COMPUTING SEMINAR IT Delphi Tools for Data Management: by J.D. DURAND / CERN-EP	16.00 SL SEMINAR SL The LEP Spectrometer Project by Bernd DEHNING & Mike HILDRETH / CERN	16.00 SL SEMINAR SL The LEP Spectrometer Project by Bernd DEHNING & Mike HILDRETH / CERN	16.00 SL SEMINAR SL The LEP Spectrometer Project by Bernd DEHNING & Mike HILDRETH / CERN	16.00 SL SEMINAR SL The LEP Spectrometer Project by Bernd DEHNING & Mike HILDRETH / CERN	16.00 SL SEMINAR SL The LEP Spectrometer Project by Bernd DEHNING & Mike HILDRETH / CERN

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