



## CHORUS passes a 'six-fold' milestone

If neutrino masses are not zero and different from each other, these particles can change, or 'oscillate', from one type into another. The CHORUS Collaboration is installing a 1  $\mu\text{m}$  resolution nuclear emulsion detector in the BEBC hall, to search for tau neutrinos in the muon neutrino beam. To keep the time needed to scan the emulsion reasonably small, an electronic detector made of arrays of scintillating fibres, a magnetic spectrometer, a high resolution calorimeter and a muon spectrometer will pre-select candidate events by applying kinematical cuts.

The magnetic spectrometer consists of a hexagonal air-core toroidal magnet, developed, designed and built at CERN. The magnetic field, pulsed for 30 ms at the ejection of the neutrino beam, is 3-metre diameter, 75-cm deep, and can reach 1200 Gauss. The hexagonal geometry is fully exploited by tracker planes before and after the magnet, made of  $10^6$  500- $\mu\text{m}$  diameter scintillating fibres, parallel and at  $60^\circ$  to the field lines.

Novel and unique features include a constant field over the whole magnetic volume and field lines in each triangle which are always parallel to the outer edge. In particular, there are no zero field regions along the axis, and no leakage field outside the magnet which could affect the image intensifiers of the tracker planes.

A test in August will be followed in October/November by a test run with calibration. CHORUS will start taking data in 1994.

(Photo IT 053.06.93/02)

Some members of the CHORUS hexagonal magnet team (left to right) : Claude Rosset, Jaap Panman, Pierre-Ange Giudici, Wilfried Flegel and Guido Petrucci.

## Les six triangles de CHORUS

Si les masses des neutrinos ne sont pas nulles et diffèrent entre elles, ces particules peuvent transmuter, ou «osciller», d'un type à un autre. Le groupe CHORUS installe actuellement un détecteur à émulsion nucléaire de 1  $\mu\text{m}$  de résolution dans le hall BEBC pour rechercher des neutrinos du tau dans le faisceau de neutrinos du muon. Pour limiter raisonnablement le temps nécessaire au dépouillement de l'émulsion, un détecteur électronique comprenant des grilles de fibres scintillantes, un spectromètre magnétique, un calorimètre à résolution fine et un spectromètre à muons présélectionnera les événements candidats en opérant des coupures cinématiques.

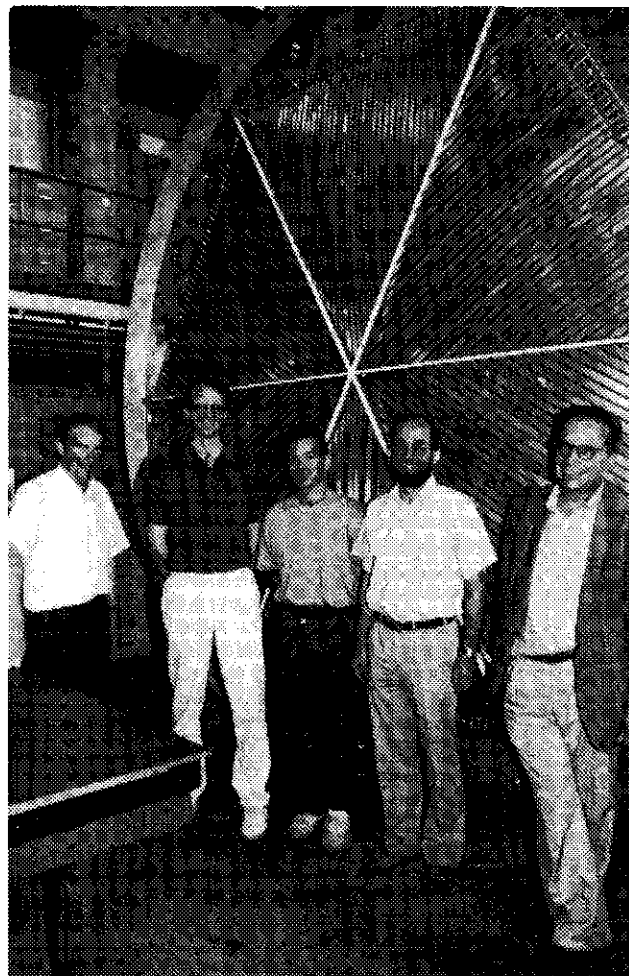
Le spectromètre magnétique consiste en un aimant toroïdal hexagonal sans culasse conçu et construit au CERN. Le champ magnétique, pulsé durant 30 ms à l'éjection du faisceau de neutrinos, occupe un diamètre de 3 m sur 75 cm de profondeur et peut atteindre 1200 gauss. Des plans de trajectographie situés en amont et en aval de

l'aimant exploitent pleinement la géométrie hexagonale; ils se composent de  $10^6$  fibres scintillantes de 500  $\mu\text{m}$  alignées sur le champ ou inclinées à  $60^\circ$ .

Les caractéristiques originales sont un champ constant dans tout le volume magnétique et des lignes de champ partout parallèles à la base dans chaque triangle. En particulier, l'aimant ne présente ni zone de champ nul sur l'axe ni champ de fuite extérieur susceptible de perturber les intensificateurs de brillance des plans de trajectographie.

Un test en août sera suivi en octobre/novembre par une période d'essais avec étalonnage. CHORUS commencera à saisir des données en 1994.

Quelques membres de l'équipe de l'aimant hexagonal de CHORUS (de gauche à droite: Claude Rosset, Jaap Panman, Pierre-Ange Giudici, Wilfried Flegel et Guido Petrucci.



# COMMUNICATIONS OFFICIELLES

# OFFICIAL NEWS

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

La reproduction même partielle de ces informations par des personnes ou des institutions externes à l'Organisation exige l'approbation préalable de la Direction du CERN.

Members of the personnel shall be deemed to have taken note of the news under this heading.

Reproduction of all or part of this information by persons or institutions external to the Organization requires the prior approval of the CERN management.

## PERTE OU VOL D'UNE CARTE DE LEGITIMATION OU D'UNE ATTESTATION DE FONCTIONS

En cas de perte ou de vol de votre carte de légitimation/attestation de fonctions délivrée par le Ministère (français) des Affaires étrangères ou le Département fédéral (suisse) des Affaires étrangères, il convient de procéder de la manière suivante :

### Carte de légitimation française

En cas de perte ou de vol (en France ou dans un autre pays), se rendre à la Brigade de Gendarmerie de Saint-Genis-Pouilly pour faire une déclaration; adresser le double de cette déclaration – avec deux photos – à la Division du Personnel (Bureau des Dossiers pour les titulaires, et Service des Boursiers et Attachés pour les autres membres du personnel).

### Carte de légitimation /Attestation de fonctions suisse

En cas de perte ou de vol (en Suisse ou dans un autre pays), écrire au Commissariat de Police, bd Carl-Vogt 19, 1211 Genève 8; adresser une copie de cette lettre – avec trois photos – à la Division du Personnel (Bureau des Dossiers pour les titulaires, et Service des Boursiers et Attachés pour les autres membres du personnel).

Il est précisé que les Etats-hôtes ne délivreront aucun duplicata si cette procédure n'est pas respectée.

Relations avec les Pays-hôtes  
Tél. 5152

## LOSS OR THEFT OF 'CARTE DE LEGITIMATION' OR 'ATTESTATION DE FONCTIONS'

In case of loss or theft of a 'Carte de légitimation' or 'Attestation de fonctions' issued by the French Ministry of Foreign Affairs or the Swiss Federal Department of Foreign Affairs, the following action should be taken:

### French 'Carte de légitimation'

In case of loss or theft (in France or elsewhere), go to Saint-Genis-Pouilly police station and make a statement; send a copy of the statement and **two photographs** to the Personnel Division (Staff Records Office for staff members and Fellows & Associates Service for other members of the personnel).

### Swiss 'Carte de légitimation' or 'Attestation de fonctions'

In case of loss or theft (in Switzerland or elsewhere), write to the Commissariat de Police, bd. Carl-Vogt 19, 1211 Genève 8; send a copy of the letter and **three photographs** to the Personnel Division (Staff Records Office for staff members and Fellows & Associates Service for other members of the personnel).

Unless these procedures are followed, the Host States will not issue duplicates.

Relations with Host States  
Tel. 5152

## SEMINARS SEMINAIRES

Wednesday 18 August

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

**The origin of cosmic rays – a proposal to explain particle energies, spectrum and chemical composition**

by Peter L. BIERMANN / Max-Planck Institut für Radioastronomie, Bonn

*The origin of cosmic rays is argued to derive from three main sources :*

- 1) *supernova explosions into the interstellar medium;*
- 2) *supernova explosions into a stellar wind; and*
- 3) *radio galaxy hot spots.*

*The key feature in this proposal is a derivation of the energy gain of energetic particles at shock fronts where the unperturbed magnetic field is perpendicular to the shock normal. The predicted resulting spectrum and particle energy range for the three major sites of particle acceleration are as follows: a spectral index of  $-2.75$  and a particle energy range up to 100 TeV (hydrogen) for the supernova explosions into the interstellar medium; a spectral index of  $-2.67$  below the knee in the cosmic ray spectrum, and  $-2.97$  above the knee*

for the supernova explosions into a stellar wind, with a particle energy range up to 3 EeV (for iron) and the knee bend of the spectrum near a few PeV. This component is strongly enriched in heavy elements. The extragalactic component is mostly Hydrogen, with an injection spectrum of  $10^{-2}$ , and extends to about 100 EeV. The characteristic particle energies of the bend and cut-offs are proportional to charge, since they derive from geometrical considerations. The predictions are tested against radio data and air shower data in some detail. Predictions and a first set of tests were made in a series of publications, with the consequences for quasar physics being explored in further publications. Additional checks can be made with the new JACEE data, and with the TeV electron spectrum. We note that the proposal suggests an explanation of the chemical abundances of cosmic rays both at low as well as at high particle energies, and gives an adequate fit to the air shower data across the knee, i.e. from about 10 TeV to 100 EeV. A few next steps to continue testing the proposal will be suggested.

## Friday 20 August

### MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

#### Gauge-boson production in electron-photon collisions

by A. DENNER / CERN

*I consider the processes  $e^- \gamma \rightarrow W \nu_e$ ,  $e^- Z$ ,  $e^- \gamma$  within the electroweak Standard Model. I review the essential features of the corresponding lowest-order cross-sections and present results for the complete  $O(\alpha)$  virtual, soft-photonic and hard-photonic corrections. While at low energies the weak corrections are dominated by the leading universal corrections, at high energies large non-universal corrections show up which arise from vertex and box diagrams involving non-Abelian gauge couplings.*

## Monday 23 August

### ISOLDE EXPERIMENTS COMMITTEE

#### Open session

Monday 23 August

at 14.00 hrs – Council Chamber

1. Introductory remarks by the Chairman.
2. Status report on separator and beamline.
3. Coordinator's report.
4. Proposal: Shape coexistence and shell-model intruder states in the lead region studied by alpha decay (Institut voor Kern- en Stralingsfysica, K.U. Leuven); ISC 93-17/P49; P. Van Duppen.

5. Proposal: Saturation of deformation and identical bands in very-neutron rich Sr Isotopes (Department of Physics, Jyväskylä-Kernchemie Mainz-Isolde Collaboration); ISC 93-23/P52; G. Lhersonneau.
6. Proposal: Single-particle states in  $^{133}\text{Sn}$  (Strasbourg-Studsvik-Oslo-Göteborg-Mainz-Warsaw-Lyon-Bergen Collaboration); ISC 93-25/P53; P. Hoff.
7. Proposal: Mass measurement of very short half-lived nuclei (Aarhus-Bucharest-CERN-Giessen-Göteborg-Mainz-Montreal-Orsay Collaboration); ISC 93-27/P54; M. de Saint Simon.
8. Proposal: Towards the proton drip-line along the cadmium isotopic chain (Warsaw-CERN); ISC 93-28/P55; P. Van Duppen.

#### Closed session

Monday 23 August

after the Open session, 6th Floor, Main Building,  
continuing on Tuesday 24 August  
from 10.00 hrs if necessary

## Tuesday 24 August

### CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium

#### A summary of the Marseille EPS Conference : Part 1 : Results from hadronic machines

by Michel DELLA NEGRA / CERN-PPE

## Wednesday 25 August

### ISOLDE SEMINAR

at 16.00 hrs – TH Conference Room

#### Exotic nuclei and the puzzle of the isotopic anomalies in meteorites

by Wolfgang HILLEBRANDT / MPI für  
Astrophysik, Garching

# EDUCATION SERVICES EDUCATIFS

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## SUMMER STUDENT LECTURE PROGRAMME

### This week

Mon. 16 August	09.00	A. Milsztajn	Deep inelastic lepton scattering (1)
	10.15	F. Zwirner	Introduction to supersymmetry
	11.15	---	Student session (1)
Tue. 17 August	09.00	A. Milsztajn	Deep inelastic lepton scattering (2)
	10.15	F. Richard	Physics at linear $e^+e^-$ colliders
	11.15	---	Student session (2)
Wed. 18 August	09.00	---	Course Review
	10.15	---	Course Review
	11.15	---	Course Review

## TRAINING PROGRAMMES

A brochure presenting the **Technical Training** programme for the first semester 1993-1994 has been distributed to staff in July. Further copies are available from the Technical Training secretariat, tel 4460.

The brochures for the **Language Courses** and **Management and Communication Training** will be available around the end of August and will be sent as in previous years to all staff paid by CERN.

The brochure for the **Academic Training Programme** will also be published around the end of August.

Please wait for the leaflets to arrive and then take appropriate action.

Education Services  
Tel. 3674

## PROGRAMMES DE FORMATION

Une brochure présentant le programme de l'**Enseignement Technique** pour le premier semestre 1993-1994 a été distribuée aux membres du personnel en juillet. Des copies supplémentaires peuvent être obtenues au secrétariat de l'Enseignement Technique, tél. 4460.

Les brochures des **Cours de langues** et de la **Formation au Management et à la Communication** seront disponibles vers la fin du mois d'août. Elles seront envoyées, comme les années précédentes, à tous les membres du personnel payés par le CERN.

La brochure du programme de l'Enseignement Académique sera également publiée vers la fin août.

Nous vous conseillons d'attendre d'avoir reçu la documentation pour entreprendre les actions nécessaires.

Services éducatifs  
Tél. 3674

## INFORMATIONS GENERALES GENERAL INFORMATION

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### LOST & FOUND

A sum of money has been found. Please contact the Registration Service in bldg 55/1-022, tel. 6611.

### OBJETS TROUVÉS

Une somme d'argent a été trouvée. Contacter le Service Enregistrement, bât 55/1-002, tél. 6611.

### À LA RECHERCHE DU BIP PERDU...

La personne qui aurait retrouvé la recherche no 3128 est priée de contacter F. Appino / MT / 2937.

### COLOUR PRINTER FOR SALE

Tektronix 4963D Color Image Printer + HP/Apollo parallel interface kit.

Please send enquiries to P. Ninin / ST-MC-TC / 8081 / ninin@cernvm.cern.ch

## VACANCY FOR PART-TIME TEACHER OF HISTORY AT FERNEY-VOLTAIRE LYCÉE

A qualified teacher is required for September 1993 to teach history at secondary level within the English National Programme at the International College and Lycée in Ferney-Voltaire, France.

Candidates should be English-mother tongue speakers with a degree in history or a related subject and will preferably have a teaching qualification as well as secondary teaching experience.

Please apply by sending a curriculum vitae to:

Mr Peter Woodburn  
Head of English National Programme  
Lycée International  
01210 Ferney-Voltaire  
France

Applications should be sent as soon as possible, and by 21 May 1993 at the latest. The Head of Programme may be contacted by telephone (50 40 82 66) if further details are required.

## SUMMER COURSE ON FORTRAN 90

Fortran 90 is the latest Fortran standard. A portable compiler is available at CERN on all unix systems and on VMS (see CERN Computer Newsletters 205 and 207 if you can't find it on your favourite computer system). Native compilers from major vendors are now entering their beta-testing phase.

It is planned to hold a course on the language in the week of 23-27 August, each morning from 09.00 to about 10.15 hrs. Anyone on the CERN site is welcome, including summer visitors.

The course is intended to give a complete overview of all the new features of Fortran, particularly array handling, derived-data types and pointers.

There is no fee for the course, but for planning purposes registration is necessary. Just send an e-mail message to [metcalf@cernvm.cern.ch](mailto:metcalf@cernvm.cern.ch) to receive full details.

### Vilhelm Beck

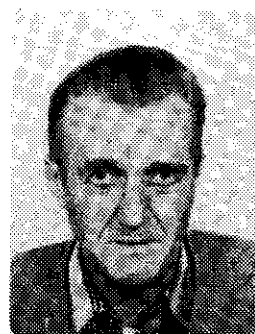
17 October 1926 – 3 August 1993

C'est avec une grande tristesse que les amis de Bill Beck ont appris son décès soudain le 3 août. Bill était entré au CERN en 1956 à la Division SC où tout le monde appréciait ses qualités de technicien très méticuleux et imaginatif. Toujours prêt à rendre service, il a laissé une quantité d'amis lorsqu'il a pris sa retraite en 1989.

Ses obsèques ont eu lieu le lundi 9 août. Vous pouvez honorer sa mémoire en faisant un don à l'Association de l'Arboretum du Vallon de l'Aubonne, CCP 10-542-6.

It was with great sadness that the friends of Bill Beck learned of his sudden death on 3 August. Bill came to CERN in 1956 and started work in SC Division, where he was appreciated for being a careful and imaginative technician. Always ready to help, Bill left behind a large number of friends when he retired in 1989.

The funeral took place on 9 August. Those of you wishing to honour his memory can do so in making a donation to l'Association de l'Arboretum du Vallon de l'Aubonne, CCP 10-542-6.



# INFORMATION

**Association  
du personnel  
CERN**

**Staff  
association  
CERN**

STAFF\_ASSOCIATION@MACMAIL.CERN.CH

At the end of March, the Chairman of the Former CERN Staff Group (FCS), Gordan Munday, sent us a nice letter which we publish below with thanks. Only the urgent nature of our current problems prevented us publishing it sooner. The letter is also a sign of the good relations the Association has with the FCS which both sides intend to develop more fully.

The President of the Staff Association  
CERN  
1211 Geneva 23

Geneva, 31 March 1993

Dear President,

The FCS Committee has been kept regularly informed of the actions which the CERN Staff Association has undertaken and intends to pursue to safeguard CERN's future.

CERN pensioners devoted a large part, some indeed almost the whole, of their working lives to the construction and flowering of this laboratory. They are deeply attached to CERN, rejoicing in its successes and disturbed by anything that threatens its future. They fully support all those who defend its interests. The FCS Committee would therefore like to congratulate you, the Executive Committee and the Staff Council for the steps taken to motivate the staff in the future and to ensure that adequate financial resources are provided to carry out the new construction and research programmes. We are also grateful to you for having made the Association, which is already widely acknowledged by the community, an effective advocate of the staff's interests.

The Staff Association has always helped and supported CERN pensioners, proving that retirement does not break links forged over many years' service in the pursuit of common goals. On several occasions, you have expressed your concern for the well-being of the pensioners and their defence has become one of the Association's priorities. You have vigorously defended the purchasing power of the beneficiaries of the Pension Fund, as well as their social security cover, in particular the "mutualiste" nature of the health insurance scheme and guaranteed benefits in the event of the dissolution of the Organization. The FCS Committee welcomes these initiatives wholeheartedly and has instructed me to express their thanks and support.

We would also like to take this opportunity to thank the Staff Council for the position it took last December in support of full indexation of pensions in 1993. This was all the more praiseworthy since it was not possible to find acceptance for the corresponding adjustment for salaries.

On behalf of the FCS Committee I would like to express the wish that the Association's actions find the appreciation they deserve among the pensioners and the staff.

Thank you once again.

With my warmest good wishes,

Gordon Munday  
Chairman of the FCS

## CONSEIL DU PERSONNEL

La 322e réunion du **Conseil du personnel** se tiendra le

**Mardi le 17 août 1993 à 14h30**  
**Salle du Conseil - Bâtiment principal, 1er étage**

### ORDRE DU JOUR

1. Election du Président de séance
2. Adoption de l'ordre du jour
3. Approbation du procès-verbal de la 321e réunion du 22 juillet
4. Programme de l'Association:
  - statuts et règlements de l'Association,
  - préparation de l'Assemblée générale extraordinaire,
  - élections aux Comités et Commissions
5. Activités du Comité exécutif: *Révision des Statut et règlement du personnel, Appréciation du système MOAS, etc.*
6. Relations avec le Conseil CERN:
  - la concertation avec le personnel
  - l'adaptation annuelle des traitements
7. Divers

Les réunions du Conseil sont publiques et vous pouvez y assister.

\* \* \*

## STAFF COUNCIL

The 322nd meeting of the **Staff Council** will be held on

**Tuesday, 17th August 1993 at 2.30 p.m.**  
**Council Chamber - Main Building, 1st floor**

### AGENDA

1. Election of the Chairman of the meeting
2. Adoption of the Agenda
3. Approval of the minutes of the 321st meeting of 22nd of July
4. Programme of the Staff Association:
  - statutes and regulations of the Staff Association,
  - preparation of the General Extraordinary Assembly,
  - elections to Committees and Commissions
5. Activities of the Executive Committee: *Revision of the Staff Rules and Regulations, Valuation of the MOAS system, etc.*
6. Relations with CERN Council:
  - concertation with the staff,
  - annual salary adjustment
7. Miscellaneous

The Council meetings are public and you can attend







## CRICKET

CERN CC at the B.Bailey's Cup (8 August 1993)

Like every year, CERN CC was invited to play the 'B.Bailey 6-a-side Cup' at the Bout-du-Monde Stadium. In this one-day cricket tournament, organized by Geneva CC, the strongest teams of the Geneva area take part. Since the number of players per team is limited to 6 (to play 10-over innings), it could be expected that each one of them would play their most attacking batting and likewise bowling, therefore being very attractive to watch. Indeed, a rather big crowd was present around the field all day long. The initial rounds of the tournament didn't cause any problem to CERN. It was as easy as flipping a coin - and by mid-day CERN found themselves in the 2nd semi-finals. The 1st semi-finals were Geneva CC vs Geneva Sri Lankans. Batting first, Geneva CC collected 89 well-deserved runs. The opponents struggled to 85 runs with only 2 (!) balls left off the final over. The last but one ball gave a boundary-4, making the score even! A breath-taking moment for the noisy audience? No! One ball left! Impossible! A tie? The fielders came in tight, the bowler ran up, the batsman swung his bat and the run was made! Scoring the winning run off the last ball of the match the Sri Lankans entered the Bailey-Cup-final! The 2nd semi-final, CERN CC vs Pak Friends, was somehow less balanced. Lacking - for unknown reasons - an experienced wicket-keeper in Mike S., CERN had a difficult fielding-side. The Pakistanis gathered 117 respectable runs off the 10 overs. In spite of the good performance of booming Dave Allen (46) CERN were 89 all out in the last over. Thus Pak Friends were in the final. Facing Geneva CC for the bronze, CERN batted first. Opening batter, Zingy Zuberi (not out), contributed 50 runs to CERN's rather meagre total of 88 runs. Then, CERN bowling, Onions (1 for 3) and Allen (1 for 8) got quick wickets. Schyns, who got slightly injured during the semi-final, managed to bowl 2 'Oakies' as a diversionary manoeuvre, leading to the fall of the 3rd wicket of the innings. At a score of 48 off 5 overs it still looked as though Geneva would win. Then Tsesmelis (3 for 4) managed to get the crowd on the edges of their seats: he got two successive wickets! Noisy echoes in the stadium! With only one wicket left, again, like last week, another match-winning hat-trick leading to honourable bronze for CERN? No, Tsesmelis took the last wicket two balls later, having Geneva CC 52 all out after 6 overs. The final, Geneva Sri Lankans vs Pak Friends, was an outstanding match, with many highlights. A very enthusiastic crowd enjoyed 148 (!)

off 10 overs. Up to the 6th over, the Cup-defending Pak Friends managed to keep up an even higher scoring rate per over than the Sri Lankans, but, in smelling victory, they lost 2 important wickets, making it impossible to win. Nevertheless they scored 129 for 2 of 10 overs. Thus Geneva Sri Lankans won the Bailey's Cup '93, Pak Friends were runners up, and CERN took the bronze, a good day for Suisse cricket.

The next match is on Sunday, 15 August at the Bout-du-Monde (12h00), vs Geneva CC for the John Harvey Memorial Cup. The reader and friends are most welcome.

For further information please contact:  
J.Barker (2658;JBARKER@CERNVM) or  
C.Onions (5039;ONIONS@CERNVM)

## Chœur du CERN - CERN Choir

Nous serions très heureux d'accueillir de nouveaux membres, et tout spécialement des voix d'hommes - ténors et basses - en vue de notre prochain concert de Noël. Outre les traditionnels chants de Noël le programme comportera des œuvres pour chœur et orchestre de Hændel et de Vivaldi.

La première répétition aura lieu le mercredi 8 septembre 1993 à 20h00 à l'Amphithéâtre principal (Bât. 60).

\* \* \*

We shall be pleased to welcome new members, and will be particularly grateful for tenors and basses, for our Christmas concert. The programme will contain music for choir and orchestra by Hændel and Vivaldi, and a selection of Christmas pieces.

The first rehearsal will take place on the 8th of September 1993 at 8.00 p.m. at the main Auditorium (Bldg. 60).

Contacts téléphoniques:

B. Bleus/PS, 2885-8244  
J.P. Diss/TIS, 3156 - (023)50407497)

# CROQUET



The annual match, Switzerland v. a representative Irish side, took place in Dublin on July 29 - 30th. Having lost the last three such matches, including against the French, the Irish selected virtually their national team. Result: Switzerland won only one match, though two others were very close.

The following week, our four players competed in various advanced and handicap events in the Championships of Ireland, playing competitors from Ireland, England, Scotland and New Zealand, an enriching experience, enjoying incredibly good weather after the wettest July for several decades.

Results: Ian Sexton won the Green Cup (for 5 & over handicaps) which Norman Eatough won last year. Ian and Peter Payne won the handicap doubles. Norman Eatough reached two semi-finals, beating the Irish champion on the way. Steve Hillier reached the semis of the over-10 handicap event.

Handicap changes: Ian 8 to 6, Peter 8 to 7, Norman 3.5 to 3.

\* \* \*

Weekend of 14-15th August: Midsummer event at CERN.

Weekend of 21-22nd August: Switzerland v. a representative England side, the top croquet nation, at CERN.

Spectators are welcome at both these events.

Le match annuel, la Suisse contre une équipe représentative Irlandaise, a eu lieu les 29 et 30 juillet à Dublin. Ayant perdu les trois derniers matches de ce genre, les Irlandais ont sélectionné virtuellement leur équipe nationale.

Résultat: La Suisse n'a gagné qu'un seul match, quoique deux autres étaient très serrés.

La semaine suivante, nos quatre joueurs ont participé à diverses événements dans le cadre des Championnats d'Irlande, rencontrant des joueurs d'Irlande, d'Angleterre, d'Ecosse et de la Nouvelle Zélande, expérience enrichissante, et ont bénéficié d'un temps incroyablement beau, suite au mois de juillet le plus humide depuis plusieurs décennies.

Résultats: Ian Sexton gagne la Green Cup (pour les handicaps 5 et plus), que Norman Eatough a gagnée l'année passée. Ian et Peter Payne gagnent le double

handicap. Norman Eatough atteint deux demi-finales, battant en route le champion Irlandais. Steve Hillier atteint la demi-finale des handicaps 10 et plus.

Changements de handicap: Ian 8 à 6. Peter 8 à 7, Norman 3.5 à 3.

Weekend des 14-15 août: Manifestation de la mi-été au CERN.

Weekend des 21-22 août: la Suisse contre une équipe représentative d'Angleterre, la nation la plus forte en croquet, au CERN.

Les spectateurs seront les bienvenus lors des deux manifestations.

# COOPERATIVES

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## COOPIN

(Bât. 563)

Information COOPIN par VM : XNEWS (COOPIN)

De nouveau en stock:

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- 512 Ko ROM,
- 2 logements pour extensions de mémoire de 32 Ko à 4 Mo et pour cartes d'application

PV CHF 595.- **Prix COOPIN 506.-**

**Gagnez du temps, pensez COOPIN.**

## INTERFON

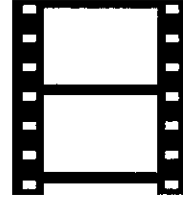
(Bât. 563)

### PROMOTION EN AOUT:

chez Pinault SAVOIES: **découpe de panneaux à vos mesures**

- laine minérale en rouleaux , largeur 120 cm, longueur 7,50 m, épaisseur 100 mm,
- panneau acoustique de laine minérale,
- Firerock laine de 20 m par panneau,
- panneau aggloméré, épaisseur 19 mm, format 250x210 cm,
- dalle de particules, choix intérieur, rainuré 4 rives, format 201x91 cm, existe en épaisseur 16, 19 et 22 mm,
- dalle de particules CTBH, choix hydrofuge, rainuré 4 rives, format 201x91 cm, existe en épaisseur 16, 19 et 22 mm

**CINE CLUB CERN**



**Jeudi 19 août 1993, à 20h.30**

**Thursday 19 August 1993, at 8.30 pm**

**AMPHITHEATRE DU BATIMENT PRINCIPAL - MAIN AUDITORIUM**

**de/of**

**Charles Crichton**

**avec/with**

**J. Cleese - J.L. Curtis - K. Kline - M. Palin**

La présence au générique de deux anciens des Monthy Python, John Cleese (également auteur du scénario et Michael Palin, donne évidemment le ton. Basé non plus sur le "non-sense" ou l'anachronisme mais toujours sur l'irrévérence et le délire structuré, cet humour très britannique fait toujours mouche et engendre l'hilarité dans un esprit fort décapant, au gré d'une écriture procédant par accumulations et ne craignant pas plus les énormités ou entorses au bon goût et à la vraisemblance que les cartoons ou bandes burlesques d'autrefois.

Monthy Pythoners John Cleese and Michael Palin get caught up in a double-crossing crime caper with a mismatched and hilarious pair of scheming Yanks, Jamie Lee Curtis and Kevin Kline.

Cleese takes an opportunity to poke fun at something ripe-for-ridicule this time, the love-hate rivalry between the Brits and the Yanks. It's funny without being mean, since both sides gets their due. Curtis steals the show with her keen sense of comic timing and sneaky little grins and asides.

**English dialogue with French and German sub-titles  
Version originale anglaise sous-titrée Français/Allemand**

**Entrée/entrance CHF 7.-**

# Restaurants

# Plats conventionnés (déjeuner / lunch)

Semaine du 16 août

Restaurant Concessionnaire	no 1 COOP	no 2 DSR	no 3 Générale de Restauration
Bât. / bldg Site	501 Meyrin	504 Meyrin	866 Prévessin
Prix	a) 6.60 FS b) 7.80 FS	a) 7.10 FS b) 8.10 FS	a) 20.50 FF b) 23.80 FF
<b>Lundi Monday</b>	a) Saucisse à rôtir Rösti Salade verte  b) Sauté de bœuf Carottes Riz sauvage	a) Saucisse de porc rôtie Pommes fondantes Salade verte  b) Sauté de veau au basilic Pâtes à l'ancienne Tomate au four	a) Boulettes de bœuf sauce tomate Coquillettes au beurre  b) Côte de porc échine grillée aux fines herbes Petits pois et carottes Tomate provençale
<b>Mardi Tuesday</b>	a) Steak d'agneau haché Pommes frites Petits pois  b) Poulet rôti Pommes frites Haricots verts	a) Tagliatelle alla carbonara Salade verte  b) Rôti de bœuf braisé à l'ail Pommes persillées Carottes à la ciboulette	a) Émincé de foie de volaille aux champignons Pommes rissolées  b) Steak haché œuf à cheval Haricots verts à l'ail Ratatouille de légumes
<b>Mercredi Wednesday</b>	a) Sauté de dinde Jardinière de légumes Cornettes au beurre  b) Pojarski de veau Pommes rissolées Courgettes	a) Filet de julienne en habit vert (épinards) Pommes nature Salade verte  b) Jambon à l'os au Chasselas de Peissy Gratin dauphinois Haricots verts	a) Oeufs brouillés aux herbes fraîches Pommes mousseline  b) Poulet rôti à la basquaise Courgettes sautées à l'ail Épinards aux croûtons <b>ENTRECÔTE GRILLÉE 30.00 FF</b>
<b>Jeudi Thursday</b>	a) Rognons sautés sauce chasseur Riz blanc Pois mangetout  b) Fricandeau de bœuf Pommes mousseline Pois mangetout	a) Chili con carne Riz créole Salade verte  b) Cuisse de poulet façon grand-mère Pommes rissolées Courgettes sautées	a) Jambon blanc supérieur sauce au madère Gratin de fenouil  b) Blanquette de veau à l'ancienne Riz blanc Carottes Vichy
<b>Vendredi Friday</b>	a) Sauté d'agneau Flageolets Tomate  b) Filet de truite rose Pommes nature Broccoli	a) Tranche de foie de bœuf à la provençale Rösti dorés Salade verte  b) Quenelles de brochet sauce aux crustacés Riz pilaf Fenouil braisé	a) Gratin de pâtes aux deux jambons Salade verte  b) Brochettes de poisson sauce créole Pommes à l'anglaise Macédoine de légumes <b>QUENELLES DE BROCHET SAUCE NANTUA 23.80 FF</b>

Heures  
d'ouverture :

Restaurant no. 1  
Lundi au vendredi :  
de 07h00 à 01h00  
Samedi et dimanche :  
1. Cafétéria  
de 07h00 à 23h00  
2. Restaurant  
de 11h30 à 14h00 et de  
18h00 à 19h30

Restaurant no. 2  
Lundi au vendredi :  
de 06h30 à 18h00  
Samedi :  
de 11h00 à 14h00

Restaurant no. 3  
Lundi au vendredi :  
de 07h00 à 09h00  
de 11h30 à 14h00

# Calendrier hebdomadaire

1993

# Weekly Calendar

Lundi Monday		16.8		Mardi Tuesday		17.8		Mercredi Wednesday		18.8		Jeudi Thursday		19.8		Vendredi Friday		20.8	
A 09.00	SUMMER STUDENT LECTURES Deep inelastic scattering (1) A. Milsztajn	A 09.00	SUMMER STUDENT LECTURES Deep inelastic scattering (2) A. Milsztajn	A 09.00	SUMMER STUDENT LECTURES Course review														
10.15	Introduction to supersymmetry F. Zwirner	10.15	Physics at linear e <sup>+</sup> e <sup>-</sup> colliders F. Richard	10.15	Course review														
11.15	Student session (1)	11.15	Student session (2)	11.15	Course review														
				14.00 TH	THEORETICAL SEMINAR The origin of cosmic rays – a proposal to explain particle energies, spectrum and chemical composition by Peter L. BIERMANN / Max-Planck Institut für Radioastronomie, Bonn											14.00 TH	MEETING ON PARTICLE PHYSICS PHENOMENOLOGY Gauge-boson production in electron- photon collisions by A. DENNER / CERN		