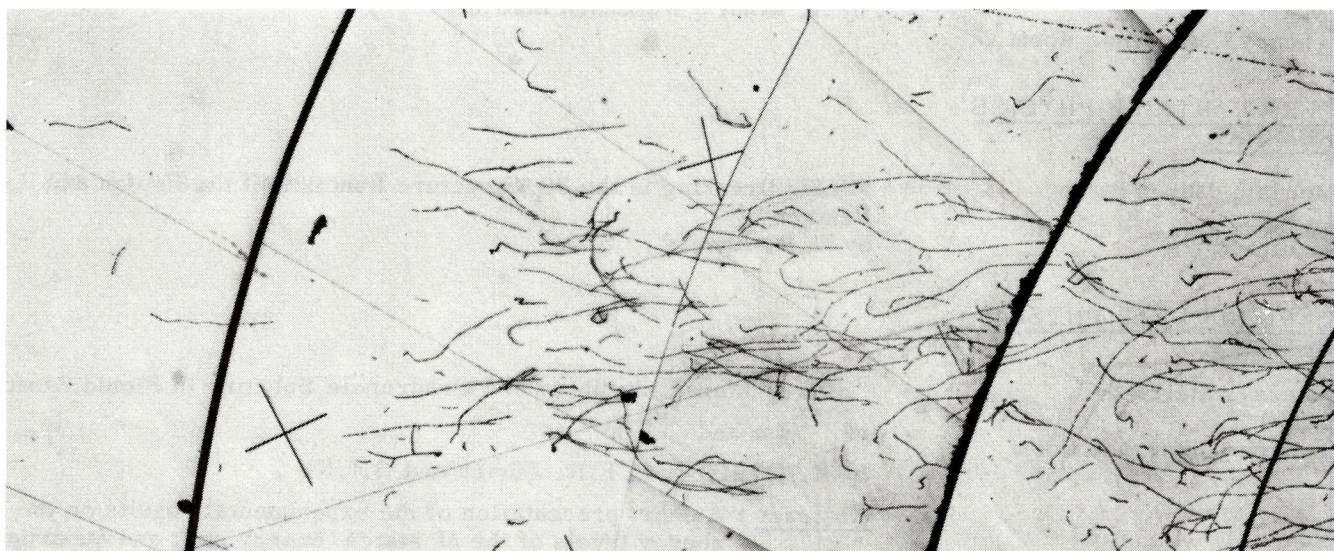


76-03-08/03-14

semaine  
week

11

bulletin



With Gargamelle preparing to go "West" and the PS shut down, BEBC has made itself independent on a series of tests using an accelerator of its own. An 18 MeV betatron was obtained from Geneva Hospital and made to work hard (in contrast to its previous medical duties) to produce the requisite  $\gamma$  rays. To operate with the high-energy particles from SPS, BEBC will incorporate a track sensitive target, a hydrogen or deuterium filled  $3 \text{ m}^3$  container made of Lexan suspended in a Ne-H<sub>2</sub> mixture. The recent trials have shown that a higher operating temperature (28 K or 28.5 K instead of 26 K) can be used for the target hydrogen and the Ne-H<sub>2</sub> will even be 1 K or so warmer. Proper mixing of the Ne-H<sub>2</sub> brew will be ensured by the BEBC piston working as a pump without the need for an additional external pump. A disk of Lexan floating above the piston was proved to be successful in hiding from the cameras the usual "corona" of bubbles around the rim of the piston and the dust accumulating on it. Double pulsing has been tried successfully down to about 0.4 s between expansions and at repetition rates up to one per 3.6 s (SPS at 200 GeV). Some turbulence was found at the faster rates and will need correction. The squiggles above are not a new flu virus but errant electrons in the fieldless chamber.

VIVE L'INDEPENDANCE !

Tandis que Gargamelle préparait sa "ruée vers l'Ouest" et que le PS était à l'arrêt, BEBC choisissait l'indépendance en réalisant une série de tests à l'aide d'un petit accélérateur obtenu à l'Hôpital cantonal de Genève, un bêtatron de 18 MeV qui dut travailler "dur" (en comparaison de ses tâches médicales précédentes) pour produire les rayons  $\gamma$  exigés. Avec les particules de haute énergie provenant du SPS, BEBC utilisera une cible à traces visibles constituée d'un récipient en Lexan en suspension dans un mélange Ne/H<sub>2</sub> d'un volume de  $3 \text{ m}^3$  rempli d'hydrogène ou de deutérium. Les récents essais ont montré qu'une température d'exploitation plus élevée (28 K ou 28,5 K au lieu de 26 K) peut être utilisée pour l'hydrogène de la cible et que le mélange Ne/H<sub>2</sub> aura même une température d'1 K plus élevée. Un mélange mieux approprié de Ne/H<sub>2</sub> permettra d'utiliser le piston lui-même comme pompe extérieure supplémentaire. L'installation d'un disque flottant au dessus du piston s'est révélée très efficace pour masquer aux caméras la couronne habituelle de bulles autour du bord du piston ainsi que les poussières qui s'y accumulent. Le cyclage double a été testé avec succès jusqu'à environ 0,4 s entre détentes et avec des taux de répétition jusqu'à un cyclage double toutes les 3,6 s (cycle du SPS à 200 GeV). Des turbulences ont été observées aux cadences les plus rapides, ce qui demandera quelques améliorations. La photographie vermiculée ci-dessus ne montre pas un nouveau virus de grippe mais des électrons errant dans la chambre qui n'était pas soumise à un champ magnétique.

# seminars

## ESO ASTROPHYSICS SEMINAR

Friday, March 5  
15.00  
DD Conference Room  
(Bldg 31 - 3rd floor)

"Limits to the Space Density of Hidden Galaxies."  
by G. S. Shostak / University of Groningen

Abstract : High sensitivity observations of the 21 cm line of neutral hydrogen place strong limits on the existence of unseen galaxies. The limit is relevant to the overall mass density of the universe.

## SPECIAL NUCLEAR PHYSICS SEMINAR

Friday, March 5  
14.00  
Theory Conference Room

"Behaviour of Nuclear Form - Factors at Large t"  
by A. Rinat / Weizmann Institute

## CERN PARTICLE PHYSICS SEMINAR

Monday, March 8  
16.30  
Auditorium

"Scale Breaking in the  $W_1$  Structure Function of the Proton and Neutron"  
by W.B. Atwood / SLAC

## CERN NUCLEAR PHYSICS SEMINAR

Monday, March 8  
11.00  
Theory Conference Room

"Strong Interaction Shifts and Quadrupole Splitting in Pionic Atoms of  $^{175}\text{Lu}$  and  $^{165}\text{Ho}$ "

by H.J. Leisi / E.T.H. Zürich and S.I.N.

Abstract : A short presentation of the experimental results on the energy levels of the  $4f$  states (energy shift and quadrupole splitting) will be given. It is then shown that the measured level shift is compatible with the usual optical potential only if the neutron distribution were to deviate strongly from that of the protons.

## EP SEMINAR

Monday, March 8  
11.00  
Large Conference Room  
(Lab.13 - 2.005)

"Analysis of the  $I = 0$  S-Wave for  $\pi\pi$  and  $K\bar{K}$  Scattering"  
by J.A. Rubio / Madrid

Abstract : New experimental results on the  $I = 0$   $K\bar{K}$  system near threshold allow a detailed coupled channel analysis of the  $I = 0$  S-wave system. The interpretation of the  $\epsilon$ ,  $S^*$ ,  $\epsilon'$  as genuine resonances is reexamined.

## CERN COLLOQUIUM

Tuesday, March 9  
16.30  
Auditorium

"Classical Directional Effects for Swift Charged Particles in Crystals"

by J. Lindhard / Aarhus University

Abstract : A survey is given of the theory of directional effects in single crystals for swift positive particles, relativistic or non-relativistic. Complete shadow effects may be obtained within distances  $\sim 10^{-9}\text{cm}$  of atomic rows and for angles less than  $\psi_1 = \sqrt{4Z_1Z_2}e^2/d.p.v.$ , where  $p$  and  $v$  are momentum and velocity of the incoming particle, and  $d$  the spacing of atoms in the row. The effects are rather stable because multiple scattering is very much reduced. The strong shadow and the simplicity of the theory is due to classical mechanics being applicable as a good approximation.

For negative particles the classical directional effects are much smaller and rather unstable. Still, negative particles may be caught in the potential wells of atomic rows. It is easy to distinguish between negative and positive particles if the crystal is used as a detector.



SC SEMINAR

Tuesday, March 9  
11.00  
Council Chamber

"News from Saclay, Experiments at Intermediate Energy with the Electron Linac and the Proton Synchrotron"  
by Ph. Catillon / CEN-Saclay  
Abstract : - Charge and magnetization densities from elastic electron scattering,  
- Neutron density from elastic proton scattering,  
- Photoproduction of pions at threshold and in the resonance region,  
- Quasi-elastic (e,e'p) experiment,  
- Pick-up experiment (p,d) at 600 MeV,  
- Pion-nucleus interaction at low energy.

SCC OPEN MEETING

Tuesday, March 9  
14.00  
Council Chamber

Provisional Agenda

1. Adoption of the Agenda
2. Minutes of the meeting of 1 December 1975 (PH.III-75/35)
3. Announcements
4. Report on irradiations at the PS (H. Ravn). Requests for machine time. Recommendations
5. Report on the Status of the SC (E.G. Michaelis)
6. New Proposals :
  - (i) "Studies of Fission of Heavy Nuclei Induced by Muons, Pions and Protons" - Dubna-CERN-Copenhagen Collaboration CERN/SCC/76-1. (T. Krogulski or G. Tibell)
  - (ii) "Proposal to Study the Absorption of  $\pi^-$  at Rest in  $^4\text{He}$ ,  $^9\text{Be}$ ,  $^{14}\text{N}$  and  $^{16}\text{O}$ " - Trieste-Padova-Legnaro Collaboration (C. Cernigoi)
7. Status report on Experiment SC 55 (H. Ullrich) and request for additional machine time
8. Other requests for machine time
9. Tentative schedule of the SC (E. Zavattini)
10. Date of next meetings (1 June, 7 September and 7 December are proposed).
11. Other business

Please note that exceptionally the meeting will start at 14.00 hours

CERN PARTICLE PHYSICS SEMINAR

Wednesday, March 10  
16.30  
Auditorium

"Further study of the high Y anomaly and measurement of neutrino-antineutrino total cross section ratio."  
by D. Cline / University of Wisconsin

HIGH ENERGY PHYSICS FOR THE OTHERS

Friday, March 12  
16.30  
Auditorium

A new seminar series will be started on an experimental basis by L. Van Hove, Research Director-General, with the aim of presenting in non-specialized terms the main results of CERN research and their place in the overall development of high energy physics.

The lectures are intended for an audience without high energy physics background and it will be attempted to make them understandable at least partly to complete laymen. Time will be reserved for questions and the suggestions of the audience will be taken into account for later lectures.

The first lecture will be on :  
"Results and efforts in the search for new particles"  
by L. Van Hove

PS SEMINAR

Friday, March 12  
11.00  
Theory Conference Room  
(Building 4 - 3rd floor)

"On the application of protons, neutrons and other particles in medicine"  
by J.H.B. Madsen

### ESO ASTROPHYSICS SEMINAR

Friday, March 12  
15.00  
DD Conference Room  
(Bldg 31 - 3rd floor)

"Rotation Curves of Galaxies from 21 cm Line Observations."  
by W.K. Huchtmeier / Hamburger Sternwarte

Abstract : A collection of rotation curves of galaxies is discussed including 21 cm and optical observations. Total mass determinations result in conventional masses and argue against the proposed existence of supermassive halos.

### CERN COLLOQUIUM

Tuesday, March 16  
16.30  
Auditorium

"The problem of the physical safeguard of Venice"  
by G. Puppi / University of Bologna

### CERN PARTICLE PHYSICS SEMINAR

Thursday, March 18  
16.30  
Auditorium

"Results from the Caltech - Fermilab neutrino experiment on the nature of the neutral current coupling".  
by A. Bodek / CALTECH

### ESO ASTROPHYSICS SEMINAR

Friday, March 19  
15.00  
DD Conference Room  
(Building 31 - 3rd floor)

"Recent Observations of the Clusters Coma and A 194"  
by G. Chincarini / Bologna Observatory

Abstract : Recent observations of radial velocities in the clusters Coma and A 194 have led to a new determination of the ratio between virial mass and luminous mass. We also have some evidence for the existence of the Coma supercluster.

### PRESENTATION TECHNIQUE

Mercredi 10 mars  
09.00 - 12.00  
Atelier Principal/ Section  
Mécanique - Bât. 100

La Maison S. KISLING & Cie AG propose la démonstration du HI-SHEAR (le nouveau système de boulonnage) et du TOHNICHI (instruments de contrôle de couple).

Langue : Français

Information :  
M. Diraison/FIN/4585

# enseignement

### ACADEMIC TRAINING

Tuesday, March 9  
Wednesday, March 10  
11.00  
Auditorium

"The g-2 of the muon"  
by E. Picasso / CERN

next week :

March 16, 17 & 18  
11.00  
Auditorium

"Gauge theories"  
by J. Iliopoulos / ENS - Paris

Abstract : The unified theories of weak, electromagnetic and, eventually, strong interactions are examined with emphasis on the more recent discoveries.

### ENSEIGNEMENT GENERAL

Jeu 11 mars  
13.00 - 13.30  
Amphithéâtre

Science pour Tous, par R. Carreras  
Programme (pour détails, voir affiches)

1. Vu, lu et entendu.
2. Question : Un petit cristal métallique (1000 atomes) est plongé dans de l'eau à 80°C. Bien qu'il n'y ait aucun autre apport ou libération d'énergie (chimique, lumineuse, radio-active, etc.), la température de ce cristal peut fort bien, après 1/4 d'heure, atteindre 100°C et plus. Pourquoi ?
3. Thème principal : "Rayons X et restes de supernovae"

# CERN information

## NEW COMPUTER CO-ORDINATOR 1976

Dr. R. Böck will assume the functions of Computer Co-ordinator for a period of one year, starting 1 March 1976.

L. Van Hove  
Research Director-General

## APPRENTISSAGES

Comme les années précédentes, le CERN engagera 2 ou 3 apprentis dans chacun des métiers suivants :

- "Employé de laboratoire en physique" (durée 3 ans)
- "Mécanicien-électronicien" (durée 4 ans)

Début de l'apprentissage : 1er septembre 1976

L'apprentissage s'effectue selon la législation genevoise et permet l'obtention du certificat fédéral de capacité.

Conditions minima : - résider en Suisse ou en zone frontalière  
- avoir accompli la scolarité obligatoire  
(15 ans révolus)

Les personnes ayant des enfants intéressés par l'un ou l'autre de ces métiers sont priées de se mettre en rapport le plus tôt possible avec le Service de l'Enseignement (tél. 2844-2460), afin d'obtenir tous les renseignements nécessaires ainsi que la formule de candidature.

Date limite de réception des candidatures : 25 mars 1976

## CAISSE D'ASSURANCES

Caisse de Pensions et  
d'Epargne  
Elections au Comité de Gestion

Les bulletins de vote pour l'élection d'un membre titulaire et d'un suppléant au COMITE DE GESTION DE LA CAISSE D'ASSURANCES CERN sont en cours de distribution.

Ci-dessous, vous trouverez quelques informations sur les candidats :

## STAFF INSURANCE SCHEME

Pension Fund and Savings  
Fund  
Elections to Management Board

Voting papers for the CERN STAFF INSURANCE SCHEME'S MANAGEMENT BOARD elections are being distributed. Below is some brief information on the candidates from whom members of the scheme are invited to choose an ordinary member and an alternate member to serve on the Management Board :

## CANDIDATES/CANDIDATS



Name/Nom	MOLLET
First Name/Prénom	Patrick
Age	56
Marital status/Situation de famille	Marié, 2 enfants married, 2 children
Position at CERN/Emploi au CERN	
Entry date/Date d'entrée	19.4.1956
Present division/Division actuelle	DG-TM
Present job/Fonction	Chef du Service Traduction et Procès-verbaux/Head, Translation and Minutes Service



Name/Nom	POTIER
First Name/Prénom	Jean-Pierre
Age	33
Marital status/Situation de famille	Marié, 2 enfants married, 2 children
Position at CERN/Emploi au CERN	
Entry date/Date d'entrée	1.8.1969
Present division/Division actuelle	MPS
Present job/Fonction	Physicist/Physicien

LISTE DES POSTES VACANTS AU 1er MARS 1976

<u>No de Poste</u>	<u>No de Vacance</u>	<u>Titre</u>	<u>Grade</u>
EP-RE-311 *	76-11	Physicien	9/10
		-----	
EF-2m-104	76-10	Employé de bureau	5
		-----	
ISR-CO-171	76-9	Programmeur (Mathématicien) ou (Physicien)	8/9
ISR-MA-367	76-4	Electromécanicien	5/6
		-----	
SPS-SI-SO-123	76-1	Dessinateur technique	6
SPS-CO-BM-259	76-12	Technicien de Laboratoire (Electronique)	6/7
SPS-SI-EL-470/471	76-7	Electricien	6
SPS-AOP-473	76-13	Programmeur Scientifique (Physicien) ou Ingénieur	8/9
SPS-EBP-474	76-17	Dessinateur technique (Appareillage électronique)	6
SPS-RF-475	76-19	Assistant technique (Electronique)	8
SPS-CO-CC-476/480	76-14	Technicien de Laboratoire (Electronique)	6/7
SPS-CO-CC-477	76-15	Technicien de Laboratoire (Electronique)	6
SPS-CO-BM-478	76-16	Technicien de Laboratoire (Electronique)	6/7
SPS-AOP-479	76-18	Technicien de Laboratoire (Electronique)	6/7
		-----	
PE-PM-122	76-6	Employé(e) administratif(ve)	5/6

NOTA : Ces vacances de poste sont publiées à l'intention des titulaires et surnuméraires seulement, à l'exception de celle suivie d'un astérique pour laquelle une publication externe a été autorisée.

Les emplois vacants des autres Organisations et Instituts peuvent être consultés aux tableaux d'affichage du Bâtiment de l'Administration et du Bureau de Réception de la Division du Personnel.

CONGE ANNUEL

Il vous est rappelé que selon l'Article R II 4.08 du Règlement du Personnel un maximum de 30 jours de congé annuel peut être reporté sur l'année de congé suivante. Les absences durant les vacances de Pâques pourront être déduites du décompte de congé pour 1975-1976.

Division du Personnel - 3238

ANNUAL LEAVE

Please remember that according to Article R II 4.08 of the Staff Regulations, not more than 30 days of annual leave may be carried forward to the following leave year. Absences during the Easter holidays may be charged against the 1975-1976 leave entitlement.

Personnel Division - 3238

## SOCIAL AFFAIRS COMMITTEE

During its February meeting, the Social Affairs Committee examined a document concerning the Unemployment Insurance Schemes in vigour in E.E.C. Member States and in Switzerland. This document will be the subject of later studies.

The Committee also discussed the present organizational responsibilities for social affairs at CERN. The wide variety of divisions, services and committees concerned leads to a dissipation of effort and is one of the reasons why the Staff Association requested the Standing Advisory Committee to review the composition and the mandate of the Social Affairs Committee. It has been agreed by the Standing Advisory Committee to temporarily suspend the activities of the Social Affairs Committee until the results of this review are known.

## PROCHAINES VISITES EN SEMAINE AU CERN

<u>Lundi 8 mars</u>	: 09h.00 Institut Universitaire des Hautes Etudes Internationales, Genève
<u>Mercredi 10 mars</u>	: 14h.30 Ecole Charliat de Beauvais
<u>Jeudi 11 mars</u>	: 10h.30 International Seminar d'Uppsala
<u>Jeudi 11 mars</u>	: 14h.30 Stagiaires du Ministère Belge des Affaires Etrangères

## OBJETS TROUVES en février 1976

A réclamer au Service de Sécurité

Le 76.02.11, 2 livres et un carnet de notes trouvés sur le site  
Le 76.02.17, un gant noir, trouvé sur le site  
Le 76.02.27, une somme d'argent trouvée au Bât. Adm.

# association du personnel

## GREVE A L'ONU

L'Association du Personnel du CERN a apporté son soutien aux fonctionnaires de l'ONU en grève jusqu'au 3 mars 1976 à minuit. Comme l'indique un flash d'information publié le 28 février 1976 par nos collègues, cette grève n'était pas motivée par une question de "gros sous" mais pour obtenir le respect des engagements pris et de la parole donnée". Au moment de mettre sous presse, nous apprenons qu'ils ont obtenu gain de cause. Ces événements démontrent les difficultés que peuvent rencontrer les délégués du personnel lorsqu'il s'agit de faire respecter les droits du personnel.

The CERN Staff Association has given its support to the officials of the United Nations Organization who were on strike till March, 3rd at midnight. As stated in an Information Flash published by our colleagues on 28th February, 1976, the strike was called not because of a question of money but "to ensure respect for commitments and engagements undertaken".

At the time of going to press, we have learnt that they have won their fight. This shows how difficult it is for the staff representatives to ensure that our rights are upheld.

## MUTUAL AID FUND

ELECTION OF MEMBERS OF THE MUTUAL AID FUND COMMITTEE : the Mutual Aid Fund Committee for 1975/76 consisted of the following members : M. G. DROUET (Chairman), M. J.P. TRIBOLET (Vice-Chairman), Miss F. VERMEILLE (Secretary), M. R. MARCEAU (Treasurer), Mrs J. PRODON, M. R. DELTENRE, M. M. GENET, M. R. BELLONE and M. L. THORNHILL. In accordance with Article 5 of the Regulations of the Mutual Aid Fund, three members of the 1975/76 Committee are retiring : Messrs DELTENRE, THORNHILL and TRIBOLET.

All persons interested in participating in the work of this Fund may offer themselves as candidates before MARCH 26, 1976.

The Secretariat of the Staff Association (internal phone : 4224-3337) will be pleased to supply : nomination forms, copies of the Regulations of the Mutual Aid Fund and information concerning the operation of the Fund. Elections will take place at the Ordinary General Meeting of the Staff Association on Wednesday, April 7th.

## ADVICE BUREAU FOR SPECIAL CASES CONTRACTS

We wish to remind you that the Bureau is open from 12 am to 2 pm on Tuesdays, Wednesdays, Thursdays and Fridays. If you wish to consult the Bureau, would you please make an appointment by contacting the Association's Secretariat (telephone 4224, 3337 or 2819).

## COLLECTION GUATEMALA

A collection has been organized for the victims of the Guatemala earthquake. If you wish to make a donation, this can be done through either of the accounts mentioned below :

Bank Account : "Compte d'Urgence" - SBS/CERN 758 114

Post Office Current Account : "Association - 12-17534. (Please mention "Collecte Guatemala" on the back of the slip.

For convenience, collection boxes will be placed in the restaurants and Post Offices and at the Bank Counters.

## AUGMENTATION DES SALAIRES

Suite au mémorandum des Directeurs Généraux concernant la répartition de 2 %, l'Association a été harcelée par une multitude de coups de téléphone de la part de ses membres. Les uns demandaient pourquoi l'augmentation s'arrêtait au grade 11, les autres pourquoi nous l'avions proposée jusqu'au grade 14. C'est pourquoi, le Comité Exécutif précise sa position, à savoir :

1. Il a défendu, comme en faisait état le dernier flash sur l'augmentation des salaires, l'octroi d'une somme égale pour tous du grade 1 au grade 14 inclus. La position de l'Association a été clairement exprimée dans le document CERN/FC/1913 soumis au Comité des Finances le 25.2.76.
2. Il a justifié cette position pour les deux raisons suivantes :
  - a) accepter, alors que dans une enveloppe tronquée, la meilleure solution était pour une distribution à parts égales pour tous, d'arrêter cette augmentation au grade 11 inclus aurait été une procédure qui risquait de ne plus être exceptionnelle et d'être étendue dans les années à venir à une coupure commençant nettement plus bas dans l'échelle des salaires. L'Association du Personnel ne représenterait plus alors le personnel du CERN.
  - b) de plus, attribuer à tous les grades une augmentation égale pour tous revenait à donner à chacun une somme de 70 FS environ.

## SALARY INCREASE

The memo from the Directors-General on the application of the 2 % salary increase for 1976 has resulted in a large number of telephone calls from members of the Association. Some wanted to know why the rise stopped at grade 11, while others asked why we had suggested that all grades up to 14 should be given it. The Executive Committee would therefore like to set out its position as follows :

1. As stated in the latest Information Flash, it upheld the idea of granting an equal amount to all grades, from 1 to 14. The Association's viewpoint was expressed in document CERN/FC/1913 which was submitted to the Finance Committee on 25th February, 1976.
2. The following two reasons were given in support of this viewpoint :
  - a) whereas the best answer would have been to give the same amount to everyone in the event of an overall cut-down, it was agreed that to grant a rise only in grades 1 to 11 would constitute a dangerous precedent for future years, and might eventually result in an even lower cut-off level. This would mean that the Staff Association would no longer represent all the CERN personnel.
  - b) moreover, even if all grades were given an equal increase, everyone would still get a rise of 70 SF per month.

# activites culturelles

BUREAU DE LOCATION DE L'ASSOCIATION DU PERSONNEL . (Baraque Wilson).  
Heures d'ouverture : lundi, mercredi et vendredi de 13h30 à 15h.

DATES	SPECTACLE	LOCATION
12 et 13 mars	<u>CROQUE-MONSIEUR</u> de M. Mithois avec J. MAILLAN	dès lundi 8 mars - 13 h 30

## LA COMEDIE





# Calendrier hebdomadaire • weekly calendar 1976

LUNDI MONDAY	MARDI TUESDAY	MERCREDI WEDNESDAY	JEUDI THURSDAY	VENDREDI FRIDAY	SAMEDI SATURDAY
03-08	03-09	03-10	03-11	03-12	03-13
<p>1100 <b>Ⓢ</b> CERN NUCLEAR PHYSICS SEMINAR</p> <p>Strong interaction shifts and quadrupole splitting in pionic atoms of <math>1/3\text{Li}</math> and <math>10\text{He}</math> - by H.J. Leisi / ETH Zurich and SIN</p> <p>1100 <b>Ⓢ</b> EP SEMINAR</p> <p>Analysis of the <math>1\text{-O S-Wave}</math> for <math>\pi\pi</math> and <math>KK</math> Scattering - by J.A. Rubio / Madrid</p> <p>EP Conference Room (Lab. 13 - 2nd floor)</p> <p>1630 <b>Ⓢ</b> CERN PARTICLE PHYSICS SEMINAR</p> <p>Scale breaking in the <math>W_1</math> structure function of the proton and neutron - by W.B. Atwood / SLAC</p>	<p>1100 <b>Ⓢ</b> SC SEMINAR</p> <p>News from Saclay, Experiments at intermediate energy with the electron linac and the proton synchrotron - by Ph. Catillon / CEN-Saclay</p> <p>1100 <b>Ⓢ</b> ACADEMIC TRAINING</p> <p>The g-2 of the muon - by E. Picasso</p> <p>1400 <b>Ⓢ</b> SCC MEETING</p> <p>Ordinary meeting</p> <p>1630 <b>Ⓢ</b> CERN COLLOQUIUM</p> <p>Classical directional effects for swift charged particles in crystals - by J. Lindhard / Aarhus University</p>	<p>900 <b>Ⓢ</b> PRESENTATION TECHNIQUE</p> <p>Maison S. Kisting &amp; Cie AG (Atelier Principal / Section Mécanique - Bât. 100)</p> <p>1100 <b>Ⓢ</b> ACADEMIC TRAINING</p> <p>The g-2 of the muon - by E. Picasso</p> <p>1630 <b>Ⓢ</b> CERN PARTICLE PHYSICS SEMINAR</p> <p>Further study of the high Y anomaly and measurement of neutrino-antineutrino total cross section ratio - by D. Cline / Univ. of Wisconsin</p>	<p>1300 <b>Ⓢ</b> A ENSEIGNEMENT GENERAL</p> <p>Science pour tous : Thème principal "Rayons X et restes de supernovae" - par R. Carreras</p> <p>1630 <b>Ⓢ</b> A HIGH ENERGY PHYSICS FOR THE OTHERS</p> <p>Results and efforts in the search for new particles - by L. Van Hove</p>	<p>1100 <b>Ⓢ</b> PS SEMINAR</p> <p>On the application of protons, neutrons and other particles in medicine - by J.H.B. Madsen</p> <p>1500 <b>Ⓢ</b> ESO ASTROPHYSICS SEMINAR</p> <p>Rotation Curves of Galaxies from 21 cm Line Observations - by W.K. Huchmeier / Hamburger Sternwarte</p> <p>DD Conf. Room bldg 31-3rd floor</p>	<p>Visites commentées Guided tours (tel. 4052)</p> <p>Renseignements définitifs : tableaux d'affichage Bât. ADM</p> <p>Final arrangements : ADM Bldg. notice boards</p>
03-15	03-16	03-17	03-18	03-19	03-20
<p>1100 <b>Ⓢ</b> EP SEMINAR</p> <p>Report on new experiment results from the <math>e^+e^-</math> physics conference in Tlaine - by Sau Lan Wu/MIT-CERN</p> <p>(more information in next week's bulletin)</p> <p>1630 <b>Ⓢ</b> CERN COLLOQUIUM</p> <p>The problem of the physical safeguard of Venice - by G. Puppi/Univ. Bologna</p>	<p>1100 <b>Ⓢ</b> ACADEMIC TRAINING</p> <p>Gauge theories - by J. Illopoulos/ENS-Paris</p> <p>1630 <b>Ⓢ</b> CERN COLLOQUIUM</p> <p>The problem of the physical safeguard of Venice - by G. Puppi/Univ. Bologna</p>	<p>1100 <b>Ⓢ</b> ACADEMIC TRAINING</p> <p>Gauge theories - by J. Illopoulos/ENS-Paris</p> <p>1630 <b>Ⓢ</b> A CERN PARTICLE PHYSICS SEMINAR</p> <p>Results from the Caltech - Fermilab neutrino experiment on the nature of the neutral current coupling - by A Bodek / CALTECH</p> <p>2030 <b>Ⓢ</b> A CONCERTS DU CERN</p> <p>Ensemble instrumental Musica Orphea</p>	<p>1100 <b>Ⓢ</b> ACADEMIC TRAINING</p> <p>Gauge theories - by J. Illopoulos/ENS-Paris</p> <p>1630 <b>Ⓢ</b> A CERN PARTICLE PHYSICS SEMINAR</p> <p>Results from the Caltech - Fermilab neutrino experiment on the nature of the neutral current coupling - by A Bodek / CALTECH</p> <p>2030 <b>Ⓢ</b> A CONCERTS DU CERN</p> <p>Ensemble instrumental Musica Orphea</p>	<p>1500 <b>Ⓢ</b> ESO ASTROPHYSICS SEMINAR</p> <p>Recent Observations of the Clusters Coma and A 194 by G. Chincarini/Bologna Observatory</p> <p>DD Conf. Room bldg 31 - 3rd floor</p>	

**Ⓢ** Amphithéâtre /bât. 500  
Auditorium /bldg

**Ⓢ** Salle Théorie /bât. 4  
Theory lecture room /bldg

**Ⓢ** Salle du Conseil /bât. 503  
Council Chamber /bldg

**Ⓢ** Amphithéâtre des ISR /bât. 30-7e. ét.  
ISR Auditorium /bldg. 30-7th fl.

**Ⓢ** lieu selon indication  
place as indicated

Dernier délai pour insertions :  
Ass. du Personnel - mardi 12h.00 (tel. 2819)  
P.I.O. - mardi 17h.00 (tel. 4106)

Deadline for insertions :  
Staff Association - Tuesday 12 hrs (tel. 2819)  
P.I.O. - Tuesday 17 hrs (tel. 4106)