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OFFICIAL NEWS

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.

SERVICE RESTREINT DES RESTAURANTS LORS DE PENTECOTE **RAPPEL**

A l'occasion de la fête de la Pentecôte, les restaurants et cafétérias du CERN seront fermés dès le samedi après-midi 26 mai 1985 jusqu'au mardi matin 28 mai 1985. Un service restreint sera assuré pendant les trois jours au Restaurant No 1 (Coop - Bâtiment 501), de 07h00 à 22h00 (restauration chaude de 11h30 à 14h00 et de 18h00 à 19h30).

Service de Liaison des Restaurants
Tél : 3189/3557

LIMITED RESTAURANT SERVICE AT WHITSUN **REMINDER**

In view of the Whitsun holiday, the CERN restaurants and cafeterias will be closed from Saturday afternoon, 26 May 1985, until Tuesday morning, 28 May 1985, except for a limited service available on the three days in question at Restaurant No. 1 (Co-op - Building 501), from 07.00 to 22.00 hrs (hot meals served from 11.30 to 14.00 hrs and from 18.00 to 19.30 hrs).

Restaurant Liaison Service
Tel : 3189/3557

PENSIONS BOARD OF THE STAFF INSURANCE SCHEME

On 26 April, the Pensions Board and the Investment Committee held a joint meeting at which the draft annual report of the Scheme for 1984 was examined. During the meeting, the Board heard a report on the yield obtained from the Scheme's investments. Several drafting changes and adjustments to the layout of the document were made.

On 8 May, at its twelfth meeting, the Board was given details of the election results and informed that the terms of office of Mr G. Maurin and Miss F. Ranjard as members of the Board had been renewed. It then heard a report on the discussions in the tripartite Working Group on CERN Pensions, with particular reference to the reactions of the delegations to the various proposals for stabilizing the technical deficit.

Dr Gigliarelli Fiumi informed the Board of the presentation he had made to the Committee of Council, in his capacity as alternate to Mr Lemne, the Council observer in the Pensions Board, concerning the Board's activities during the past year, with particular reference to investments.

The Administrator outlined the various solutions currently under study for the future management of the Scheme's assets and informed the Board of the action being taken. A special meeting of the Pensions Board will shortly be convened to study this matter.

The Board then carried out a final examination of the draft annual report and took note of the actuary's report which will form part of it.

The Administrator informed the Board of the present state of negotiations for two purchases of real estate in France. He also informed members of certain statistical changes since the previous meeting with regard to the beneficiaries of the Scheme.

SEMINARS **SEMINAIRES**

Tuesday 28 May

PRESENTATION

at 10.00 hrs - PS Auditorium (bldg. 6, 2-024)

Artificial Intelligence within Inference Art

by B.E. AVIS and D.J. PLATT / Ferranti Computer Systems Ltd.

Inference Art is a development shell for Expert Systems. The presentation will cover an introduction to Artificial Intelligence leading to a general presentation of Inference Art, which will cover the terminology used and the facilities within Art. This will be followed by more detailed information on Art programming language. The formal part of the presentation will be concluded des-

cribing Ferranti support of Inference Art. A series of practical demonstrations will be arranged in the afternoon on a Symbolics 3640 LISP machine.

Tuesday 28 May

PRESENTATION

at 10.30 hrs - DD Amphitheatre
(bldg. 31, 3rd floor)

Low-cost networking with VMEbus and Ethernet Cheapernet

by R. OSSEL / Actron/VMES, Holland, and
D. DALZELL / Logic Replacement Technology, U.K.

Logic Replacement Technology (LRT) of Reading, U.K., specialise in the design and manufacture of Ethernet based local area networks. Together with their affiliates, Actron/VMES (Holland), LRT will present and demonstrate their low-cost, high-performance, 'Etherseries' networked UNIX system, their 'Filtabyte' VMEbus Ethernet/CheaperNet interface and their Ethernet transceivers showing remote log-in and file transfer over an Ethernet.

Wednesday 29 May

TECHNICAL PRESENTATION

10.30 to 12.30 hrs – EF Conference Room
(bldg. 13, 2-005)

LeCROY RESEARCH SYSTEMS SA (CH) will introduce a Digital Storage Oscilloscope. The LeCROY 9400 Dual Channel 125 MHz Digital Oscilloscope sets a new standard in digital storage oscilloscopes. Combining the advantages of oscilloscopes and transient recorders in a single, portable (14 kg), easy-to-use instrument, the 9400 samples waveforms at up to 100 megasamples/sec. Repetitive signals are acquired and stored at a random interleaved sampling rate of 5 gigasamples/sec (or one measured point every 200 psec).

Specific application : high frequency transients capture

Language : English

Information : M. Diraison / FI / 4585

Wednesday 29 May

LEP SEMINAR

at 14.30 hrs – LEP Auditorium
(Bldg. 30, last floor)

Chromaticity effects and sextupole algorithms

by G. GUIGNARD / CERN-LEP

The chromatic effects and the variables of interest are briefly described. The question of the cancellation of the linear perturbations in the momentum deviation is summarized and the influence of the phase advance per cell and sextupole arrangement is discussed. Non linearities in momentum deviation and in amplitude are described, and related quantities like the dynamic aperture defined. Computer programs used for calculating the effects are mentioned, with examples from LEP.

Wednesday 29 May

DD SEMINAR

at 16.00 hrs – DD Amphitheatre
(Bldg. 31, 3rd floor)

The ZEBRA System

by Julius ZOLL

ZEBRA provides the FORTRAN programmer with the service functions needed to handle dynamic data structures. The particular type of data structure, i.e. free-type with reverse pointers, will be described. The need for data structures in high energy physics will not be discussed. Management in computer memory is fairly obvious and straightforward. This was the design aim of HYDRA, the earlier system. The great break-through over 'simple' FORTRAN programming came as a by-

product and unexpectedly in the field of input/output. Completely general input/output in computer-independent format, perfectly suited for high-energy physics, is the result; it will be discussed in some detail.

Thursday 30 May

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Latest results on jet physics from UA2

by John Renner HANSEN / CERN-EP

The UA2 collaboration has analysed all the hadron triggers collected during the 1984 SPS Collider run. The total integrated luminosity from 1984 is 310 nb^{-1} at a collision energy of 630 GeV. The analysis presented covers a broad spectrum of jet topics : jet production cross-sections, single isolated photons, a measurement of α_s , K_3/K_2 from 3-jet events and studies of events with large missing transverse momentum. The results are compared to measurements from 1983 (collision energy 546 GeV) and theoretical calculations.

* Tea and coffee will be provided at 16.00 hrs.

Friday 31 May

CAS ACCELERATOR SEMINAR

at 14.30 hrs – LEP Auditorium
(Bldg. 30, last floor)

Renormalization in dynamical systems

by F. VIVALDI / Queen Mary College, London

Renormalization Theory is a fashionable topic in modern dynamics. It is used to describe the transition from stability, from order to chaos, which takes place as some parameter of a dynamical system is varied. Here I present an introduction to this subject.

Monday 3 June

EF SEMINAR

at 11.00 hrs – EF Conference Room
(bldg. 13, 2-005)

The SPS – Recent performance and future use

by W.C. MIDDELKOOP / CERN

The recent performance of the SPS in the normal and the pulsed collider mode will be discussed. Its future use for the acceleration of oxygen ions and as an $e^\pm$ injector for LEP will be described.

Tuesday 4 June

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium

The first direct observation of beauty decays

by Paul MUSSET / CERN

Mercredi 5 Juin

SEMINAIRE LEP

à 14.30 h – Amphithéâtre LEP

Les convertisseurs de puissance à thyristors

par A. BEURET / LEP-PC

Jeudi 6 Juin

SEMINAIRE TIS

à 14.30 h – Salle de Conférence du PS

Maladies professionnelles au CERN

par le Dr. J.-P. DISS

TRAINING AND EDUCATION ENSEIGNEMENT

ENSEIGNEMENT GENERAL

Tél. 2844

Jeudi 30 mai

de 13.00 h à 13.30 h – Amphithéâtre

Science pour tous

par R. CARRERAS

ACADEMIC TRAINING

Tel. 2844-3364

29, 30 and 31 May

11.00 to 12.00 hrs – Auditorium

Highlights on proton-antiproton collider results

by L. DI LELLA /CERN

3, 4 and 5 June

3 and 4 June : 11.00 to 12.00 hrs

5 June : 10.00 to 11.00 hrs

LEP Auditorium (last floor of bldg. 30)

Hamiltonian mechanics

by J.S. BELL /CERN

Hamilton's equations; Hamilton's principle; Lagrange's equations; Poisson brackets; Lagrange brackets; Symplectic transformations; Poincaré invariant; Liouville's theorem; Canonical transformations; Angle and action variables; Perturbation theory. These lectures are intended for accelerator physicists.

5, 6 and 7 June

11.00 to 12.00 hrs – Auditorium

Physics at LEAR

by R. ARMENTEROS and P. LEFEVRE /
CERN

Lecture 1, by P. LEFEVRE

Short description of the Lear machine and its experimental area. Indications of present performances. Overview of options for the future.

Lectures 2 & 3, by R. ARMENTEROS

The lectures will concentrate essentially in a description of the physics aims of the different experiments. They

are still in different phases of data taking and consequently few final results will be presented. An effort will be made, nevertheless, to describe how the analyses are progressing.

LECTURE NOTES

Participants to the lectures on 'e⁺e⁻ physics', by G. FLÜGGE, are informed that the copies of the transparencies have been printed and may be obtained (**on self-service**) in the Entrance Hall of Building 54 (SB Division building).

INFORMATICS TUTORIAL 1985-3

24 to 27 June

09.00 to 12.00 hrs and from 14 to 17.00 hrs

Prolog for expert systems

by Jacques MENU / Department of Mathematics, EPF Lausanne

The programming language PROLOG was defined by a team led by A. Colmerauer in Marseille in 1972, influenced by the work of J.A. Robinson and R.A. Kowalski. It relies on the key idea that the logical specification of a problem may be used as a program to solve the problem itself. Interest in PROLOG has boomed since it was selected for the Japanese 5th Generation Computer project in 1981. Dialects of the language are available on various computer systems and are used for applications such as natural language interfaces, logical circuit analysis, compilers and expert systems.

Expert Systems are computer programs performing automatic reasoning in a well defined field. Knowledge is usually expressed as a set of rules, independent from the reasoning mechanism, and the system can perform deductions based on the knowledge it has and information provided by the user. The knowledge base can easily be modified, and the system is also able to explain how it has derived the answer.

This course will present the PROLOG language through examples, review traditional techniques of Artificial Intelligence and introduce the fundamentals of Expert Systems. The lectures will be combined with practice with C-Prolog under Vax VMS. Some experience in high level language programming is required.

The course material will include the book 'PROGRAMMING IN PROLOG' by W.F. Clocksin and C.S. Mellish, copy of the lecture notes and the C-Prolog User's Manual.

To register, please contact Mrs Monique Antal, DD Division, phone 2396, before June 11. The attendance will be limited to 32.

On June 19 at 16.00 hrs J.P. Muller will give a DD seminar on 'Expert Systems : future and reality'.

Jacques MENU is Assistant Professor at the Department of Mathematics of the EPFL. He graduated in Mathematics from EPFL in 1977 and received a PhD in Computer Science from the same school in 1983. He developed two compilers for the high level programming language NEWTON. His current interests include logic programming, automated reasoning, compilation and man-machine interfaces.