

SEMINARS SEMINAIRES

Monday 20 October

PRESENTATION

at 10.00 hrs – DD Auditorium
bld 31, 3-005

ISO Communications Software: available NOW

by D. MORVAN / Marben Informatique, Paris

It has been said that the International Standards Organisation's Open Systems Interconnection (ISO OSI) communications protocols are the solution of the future – and always will be! However, the credibility of the OSI approach is increasing rapidly with the appearance of actual products, offering at least the Transport (remote intertask communication) and Session functions. One such product, designed for efficiency and portability, has been acquired by the Communications Systems group which will use it as a basis for a customised package for microprocessor-based applications. The talk will present the concepts of the ISO OSI model in general, and the Transport layer in particular, with emphasis on the functionality and capabilities of such a system.

NOTE: The speaker will be available for informal and in-depth discussions on OSI and his product, in the afternoon (14.30 hrs in DD Conference Room 1, building 600, room R-011).

Monday 20 October

CERN COLLOQUIUM DEDICATED TO THE MEMORY OF PAUL MUSSET

at 15.00 hrs – Auditorium*

Please note the unusual time

Paul MUSSET, his scientific career

by André ROUSSET and Jean-Pierre VIALLE

An overview of particle physics

by Abdus SALAM / ICPT

* Tea and coffee will be provided after the Colloquium.

Tuesday 21 October

LEP EXPERIMENTS COMMITTEE

Open session

at 09.00 hrs – Auditorium

09.00-09.10 *Introductory statement by H. Schopper*

09.10-10.00 *Status of LEP (E. Picasso)*

10.00-10.40 *Status report on experimental zones and their technical installations (F. Bonaudi)*

10.40-11.00 *Coffee break*

11.00-12.00 *Report on the ECFA-Workshop LEP 200 in Aachen, 29.9-1.10.1986 (D. Perkins)*

Status of LEP Experiments

12.00-12.45 *OPAL*

Lunch

14.00-14.45 *L3*

14.45-15.30 *ALEPH*

15.30-16.15 *DELPHI.*

BULLETIN CERN

43/86 – 20.10.86

Closed session

Tuesday 21 October at 16.45 hrs, Conference Room 6th floor, Administration building, continued on Wednesday 22 October at 09.00 hrs.

Mardi 21 octobre

PRESENTATION TECHNIQUE

de 09.30 à 12.00 h et de 14.00 à 16.00 h
bât. 73, 2-027

Les PME2 (CH) se présentent au CERN. Le groupement des PME2 (Petites et moyennes entreprises de l'électronique) rassemble une vingtaine de sociétés particulièrement dynamiques et novatrices. Toutes ont une activité de développement ou de fabrication. Ce ne sont donc pas des sociétés de représentation. Grâce à un potentiel de 200 employés, dont plus de 40 ingénieurs, les entreprises PME2 sont à même d'étudier chaque problème individuellement afin de lui trouver la solution optimale. Si l'importance du projet l'exige, plusieurs sociétés de ce groupe peuvent mettre en commun leurs capacités et leurs expériences afin d'atteindre rapidement, économiquement et efficacement les objectifs visés. Leur champ d'activité couvre des domaines divers et variés, tant par les produits que par les prestations offertes : alimentations aux normes MIL, acquisition et traitement de données, automation, capteurs, commandes programmables, connecteurs de haute fiabilité, conception de circuits imprimés, fibre optique, fils en alliages spéciaux, gestion énergétique, micro-ordinateurs, étude et développement en électronique analogique et numérique, logiciel pour applications techniques et scientifiques, sous-traitance, etc.

Liste des participants :

Aviatat Electronique, Ets Roger Bovay SA, Bron Electronique SA, Comec SA, Depras SA, Digidesign, Etrelec, W.W. Fischer SA, Claude Gillieron Electronique, Microfil Industries SA, Penril Technical SA, Powersoft, Protonique SA, Redelco SA, Static Input System SA.

Langue : français

Renseignements : M. Diraison / FI / 4585

Tuesday 21 October

CERN COLLOQUIUM

at 16.30 hrs – Auditorium*

Cosmology, astronomy and fundamental physics

by D. SCIAMA / Oxford & Trieste Universities

Elementary particle physics and cosmology are now closely related. A cosmologist's view of this relation will be described, with special emphasis on some recent major observational discoveries.

* Tea and coffee will be provided at 16.00 hrs.

Mercredi 22 octobre

SEMINAIRE LEP

à 14.30 h – Amphithéâtre du LEP
bât. 30, 7e étage

Métrologie d'installation du LEP

par W. COOSEMANS et M. HUBLIN /
CERN-LEP

C'est à partir du réseau géodésique de surface, mesuré par trilatération au terramètre, que sont déterminées les coordonnées des piliers de fond de puits. Le référentiel souterrain, matérialisé par des tripodes amovibles, sera mesuré puis calculé entre deux puits consécutifs; c'est lui qui permettra ensuite l'alignement des quadripôles, des dipôles et des éléments des insertions. Les différentes séquences de la métrologie du LEP sont exposées. Le groupe SU s'est doté de moyens mécaniques, électroniques et informatiques permettant d'effectuer, d'acquieser et de traiter les 32000 mesures nécessaires à l'alignement des 4500 éléments de la machine. L'exemple de la mise en place des quadripôles permettra de présenter les différents systèmes mis en œuvre.

Wednesday 22 October

CERN COMPUTER SEMINAR

at 16.00 hrs – Auditorium*

Architecture and applications of the ultracomputer

by Malvin H. KALOS / New York University

The NYU Ultracomputer is a shared memory MIMD parallel architecture that has the promise of scaling up to thousands of processors and performing well on a wide variety of applications. It will support a modern multi-processing operating system and be programmable in modest generalizations of familiar styles. The general organization comprises many processors plus caches connected by means of a pipelined message switching Omega network to equally many memory modules constituting a global, interleaved address space. Individual switches of the network will be enhanced with onboard memory to buffer messages so that the bandwidth of the network will be proportional to the number of processors. The switches will also combine messages simultaneously directed at a single memory location, including 'fetch-and-adds', a novel and powerful coordination primitive. The current status of operating systems, hardware prototypes, and applications experience will be described. A variety of possible programming styles will also be discussed.

* Tea and coffee will be provided at 15.30 hrs.

Thursday 23 October

TECHNICAL PRESENTATION

09.30 to 12.00 hrs and 14.00 to 16.00 hrs
bldg 73, 2-027

CEFLEX AG (CH) representing SIEMENS (D) and XPELAIR (GB) will introduce the newly developed ventilators from wall-window, low pressure axial flow, double inlet radial flow, radial flow single inlet and belt driven, radial flow single inlet with direct drive, transformer fans, etc., to radial flow fans of customer required designs.

Languages : English, French

Information : M. Diraison / FI / 4585

Thursday 23 October

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

HERA experiments : physics requirements and proposed detectors

by F. EISELE / DESY

Two large detectors have been proposed and are approved in principle for the e-p collider HERA presently under construction at DESY. The seminar will give a short review of the HERA machine and its present state, a discussion of the main themes for HERA physics and the resulting detector requirements, a description and comparison of the two proposed detectors, and a summary of the present status of their design and construction.

* Tea and coffee will be provided at 16.00 hrs.

Friday 24 October

MEETINGS ON

PARTICLE PHYSICS PHENOMENOLOGY

at 11.00 hrs – TH Conference Room

Parameters of the phase transition to the quark-gluon plasma from lattice QCD

by F. KARSCH / CERN

Status of SPS $^{16}\text{O} + \text{A}$ 200 GeV runs : part II

Spokesmen NA36, NA38, WA80

We start with a discussion of the present status of the determination of the QCD phase diagram at finite temperature and chemical potential from lattice QCD. We then continue the presentation of the status of heavy ion experiments at CERN started in the last meeting.

Monday 27 October

EF SEMINAR

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

High resolution hadron calorimetry

by Richard WIGMANS / CERN and
NIKHEF-H

The components that contribute to the signal of a hadron calorimeter and the factors that affect its performance will be discussed in some detail, concentrating on two aspects : energy resolution and linearity. Both are decisively dependent on the relative response to the electromagnetic and the hadronic shower components, the e/h ratio. The factors that determine the value of this ratio will be examined. It will be shown that for a sampling calorimeter, e/h can be tuned over a rather broad range, in particular if the readout medium contains hydrogen atoms. Signal equalization, or compensation (e/h = 1.0) does not seem to be a property unique to uranium, but can be achieved for lead and probably even iron absorbers as well. The choice of the readout medium is much more crucial in this respect than the absorber material. Experimental results that are often considered confusing are nicely reproduced and explained.

Monday 27 October

EP SEMINAR

at 16.30 hrs – Auditorium

Measurement of the Λ_c lifetime using CCDs

by D.P. KELSEY / CERN-EP

Results will be presented on a clean sample of Λ_c decays obtained in experiment NA32 (ACCMOR Collaboration). For the first time in a high energy physics experiment charge-coupled devices (CCDs) have been used together with silicon microstrip detectors to reconstruct charmed particle decays close to the primary interaction point. A second level trigger was used to enrich the data with decays of $\Lambda_c^+ \rightarrow pK^- \pi^+$ (and charge conjugate) and $D_s^+ \rightarrow K^+ K^- \pi^+$. First results from the 1985 run will be presented, including a measurement of the Λ_c lifetime.

Tuesday 28 October

SPS EXPERIMENTS COMMITTEE

Open session

at 09.00 hrs – Auditorium

1. *Status Report on UA6 (Internal hydrogen jet target to study inclusive electromagnetic final states at large transverse momentum and lambda production in antiproton-proton and proton-proton interactions; C. Joseph).*

Closed session

at 14.00 hrs, Conference Room 6th floor, Administration building (to be continued on Wednesday 29 October at 09.00 hrs).

Wednesday 29 October

LEP SEMINAR

at 14.30 hrs – LEP Auditorium
bldg 30, 7th floor

Three-dimensional magnetic field computations

by T. TORTSCHANOFF / CERN-LEP

Wednesday 29 October

DD SEMINAR

at 16.00 hrs – DD Auditorium
bldg 31, 3-005

Report of the SHARE 67 conference – August 1986, Atlanta

by Eric van HERWIJNEN / CERN and
Steve DRUCK / University of Geneva

Friday 31 October

PRESENTATION

at 15.00 hrs – DD Auditorium
bldg 31, 3-005

The SCS-40 near-supercomputer

by Hanan POTASH / Vice President Engineering
and Founder of SCS Corp.

TRAINING AND EDUCATION ENSEIGNEMENT

ENSEIGNEMENT GENERAL

Tél. 2844

Jeudi 23 octobre

de 13.00 h à 13.30 h – Amphithéâtre

Science pour tous

par R. CARRERAS

ACADEMIC TRAINING

Tel. 2844-3364

29, 30 et 31 octobre

11.00 à 12.00 h – Amphithéâtre

Introduction à la robotique (in French)

par A. FOURNIER / Université du Languedoc

Les trois exposés se décomposeront comme suit :

- *Description fonctionnelle et technologique des robots industriels. Exemples d'applications.*
- *Etude du robot dans son environnement. Les capteurs utilisés en robotique. Rôle de la vision.*
- *Méthode de programmation des robots : l'apprentissage, les langages textuels, la CAO.*

PLAN DE FORMATION 1985/1986

Après sa présentation au Management Board en septembre et confirmation par le Directeur général, ce Plan est maintenant disponible dans les Secrétariats de divisions.

Malgré sa publication tardive, le Plan contient des informations utiles pour le personnel : des statistiques sur l'évolution et la formation organisée par les Services Educatifs et les divisions, sur la répartition de l'effort de formation par catégorie de personnel. Il montre la tendance du développement futur. Enfin, il pourrait encourager les membres du personnel et leurs responsables hiérarchiques à s'engager encore plus sur cette voie.