

COMMISSION PARITAIRE CONSULTATIVE DES RECOURS

La Commission Paritaire Consultative des Recours s'est réunie pour examiner l'appel introduit par Monsieur Michel TARDY à propos de l'application de la Circulaire administrative n° 22.

Conformément à l'Article R VI 1.11 du Règlement du Personnel, les recommandations de la Commission et les décisions définitives du Directeur général sont à porter à la connaissance du personnel.

Pour ce faire, ces documents seront affichés aux tableaux du Bâtiment de l'Administration (n° 60) du 21 avril au 5 mai 1989.

Division PE
Tél. 2855

JOINT ADVISORY APPEALS BOARD

A meeting of the Joint Advisory Appeals Board has been held to examine the appeal lodged by Mr Michel TARDY regarding the application of Administrative Circular N° 22.

Article R VI 1.11 of the Staff Regulations specifies that the recommendations of the Board and the final decisions of the Director-General shall be brought to the notice of the personnel.

The relevant documents will therefore be posted on the notice boards of the Administration Building (N° 60) from 21 April to 5 May 1989.

PE Division
Tel. 2855

SEMINARS SEMINAIRES

Monday 24 April

EF SEMINAR

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

A new generation of computational tools in structural engineering

by Lionel BORNE / CERN-EF

The goal of this seminar is to introduce the recent concepts of operators and typed objects, which improve considerably the programming capacities for the finite element method in structural engineering. The versatility of such architecture will be discussed using the CASTEM 2000 package. It provides a simple, powerful, and interactive environment for the user : the finite element modelling is done using an 'evolved' language to link operators and typed objects. Natural typed objects and basic operators will be used in a very simple analysis. New features will be also explored :

- *The user's capacity to check, modify, improve an algorithm without any help from the developing team.*
- *The user's capacity to build procedures and libraries, his own environment.*

- *The capacity to perform other types of analysis and to incorporate new features.*

Language : Foils will be in English; the talk will be in French.

Lundi 24 avril

PRESENTATION TECHNIQUE

de 14.00 à 17.30 h – bus, parking extérieur, près de l'entrée principale

Excom AG (CH/J) présente ses nouveautés en matériel informatique :

- **Ordinateurs** : EPSON AX, AX2, AX3 386 20 MHz, AX portable 286 12 MHz, PSE30
- **Imprimantes** : EPSON LX-850 : LQ-550, SQ-850, SQ-2550, TLQ-4800, TSQ-4800, GQ-5000 laser jusqu'à 6 MB de mémoire, LQ-860/1060
- **Moniteurs** : EIZO 4051 WL monochrome blanc 14", 6500 monochrome blanc 21" pour PAO, 9060 FLEXSCAN 14", 9070 FLEXSCAN 16", 9500 FLEXSCAN pour la CAO.

Langues : allemand, anglais, français
Renseignements : M. Diraison / FI / 4585

Mercredi 26 avril

PRESENTATION

à 09.00 h – Amphithéâtre LEP
bât. 30, 7e étage

Applications de systèmes experts au LEP Journée de démonstration autour du générateur GENESIA

Trois systèmes experts générés par GENESIA ont été développés au CERN. Deux d'entre eux ont pour charge de surveiller la sécurité : l'un au niveau de l'infrastructure des quatre expériences LEP (GSS, General Surveillance System), l'autre au niveau des détecteurs de particules de l'expérience L3 (Slow-control L3). Ces deux systèmes échangent de l'information entre eux.

La journée est organisée autour de la démonstration des systèmes experts mentionnés plus haut et de la présentation des générateurs de systèmes experts de la famille GENESIA.

La Société STERIA (France) commercialise les produits GENESIA.

- 09.00 Introduction à l'intelligence artificielle (STERIA)
- 09.30 Présentation de l'application GSS (CERN)
- 10.00 Présentation de l'application Slow Control de l'expérience L3 (CERN-L3)
- 10.30 Démonstrations (CERN)
- 14.00 GENESIA II dans l'industrie (STERIA)
- 14.45 Discussions et démonstrations (STERIA-CERN)

Langues :

Présentations en français

Démonstrations et questions en anglais ou en français.

Renseignements : F. CHEVRIER / EP / 4969 /
13-7112 / VXPRIX::CHEVRIER
ou J.-M. LE GOFF / EF / 2178 /
13-6153

Mercredi 26 avril

PRESENTATION TECHNIQUE

de 09.30 à 16.30 h – bât. 17, salle 1-007

X-Tronix SA (CH) présente les produits suivants : de APD Cryogenics (GB), cryo-pompes / cryostats – de AP&T (D), canon à électrons / electron beam guns / thickness monitors – de Elettrorava (I), bâtis pour dépôts sous vide de couches minces / thin film coaters – de Riber (F), composants UHV / analyses de surface / MBE / UHV components / surface analysis / MBE – Vacuum General (USA), mesure et régulation de la pression et du débit / Pressure and flow measurement & control – Vacutec, bâtis pour gravure par plasma / Plasma etching systems.

Langues : allemand, anglais, français, italien

Renseignements : M. Diraison / FI / 4585

Wednesday 26 April

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Structure function Monte Carlos

by R. KLEISS / CERN

Recently QED structure functions have come to be applied to Monte Carlo programs for precision tests of the electroweak interactions at LEP. After discussing how the theoretical ingredients of this approach relate to actual computer algorithms, I discuss a fundamental limitation to the accuracy of the algorithm which cannot be improved by the addition of K factors, and its physical motivation.

Friday 28 April

MEETINGS ON

PARTICLE PHYSICS PHENOMENOLOGY

at 11.00 hrs – TH Conference Room

The QCD cascades : parton-hadron duality, fractal nature and intermittency

by B. ANDERSSON / University of Lund, Sweden

New developments, based on the dipole approximation to the QCD partonic cascades, are reviewed. A multiplicity measure λ is introduced, which corresponds to a multiparton stage generalization of the two-jet rapidity range concept. Multiplicity fluctuations may then be factorized into one part stemming from the QCD cascade (the distribution in λ for given CM energy), and one part from fragmentation (Poisson-like for a fixed λ). The λ distribution from the QCD cascades is calculated and is shown to be the main source of fluctuations at LEP energies. The distribution exhibits interesting multifractal properties and unusual scaling behaviour of the multiplicity in rapidity bins (somewhat arbitrarily termed intermittency in some recent studies).

Tuesday 9 May

MEETING ON FASTBUS DEVELOPMENTS

at 09.00 hrs – TH Conference Room

1. *The read-out system for the FEMC of DELPHI*
by M. Pegararo / University of Padua
2. *Multiprocessor systems in FASTBUS*
by A. Marchioro / CERN
3. *The CHI, a new FASTBUS interface and general purpose processor*
 - a) *The hardware*, by H. Müller / CERN
 - b) *The software*, by R. Divia / CERN
4. *FASTBUS daisy chain variants : is convergence possible?*
by P. Ponting / CERN
5. *Various*

Wednesday 10 May

COMPUTER SEMINAR

at 16.00 hrs - Auditorium*

Multi-media networking

by Chris ADAMS / Rutherford Appleton
Laboratory, UK

TRAINING AND EDUCATION ENSEIGNEMENT

INFORMATICS TUTORIALS 1989

Announcement

Title : An Introduction to Operating Systems
Lecturer : C.R. SNOW / University of Newcastle-upon-Tyne
Dates : Monday 9 to Friday 13 May
Place : Mornings – DD Auditorium (bldg 31, 3rd floor)
Afternoons – Technical Training facility (bldg 593)

The course discusses the principles of operating system design, taking a detailed look at the overall structure of an operating system, and the design and implementation of its various components. As each aspect is considered, various alternative design decisions will be described and evaluated. The course will be divided into five parts, each one corresponding (roughly) to one of the five days during which the course will run. The aspects to be considered will be :

- *Introduction to operating systems, processes and interprocess communication, system structure, process representation, process scheduling*
- *User view of an operating system, user interaction with the system, system calls*
- *Memory management, allocation of real memory, virtual memory and its management*
- *Input/output, device drivers, deadlocks*
- *File systems : design and implementation*

The course will be based on Andrew S. Tanenbaum's book 'Operating Systems : Design and Implementation', and practical work will be undertaken using the MINIX system as described in this book.

Practical exercise sessions are foreseen in the afternoons on the IBM PC/ATs of the Technical Training facility. Since the MINIX system is written in the C language, a good working knowledge of that language is desirable to gain a maximal benefit from the course. In fact, modification of the MINIX system constitutes the main part of the practical work.

Registration :

If you wish to attend this series you should discuss the matter with your direct supervisor and, if he agrees, send an electronic mail message to INFOTUTO@CERNVM, indicating your preferred electronic mail address.

C.R. Snow is a lecturer in Computing Science at the University of Newcastle-upon-Tyne (England), with a general interest in low-level software and operating systems. Recently he has been interested in the problems of debugging systems programs, and particularly in techniques for locating concurrency related bugs. He has been teaching a practical course in operating systems to final year undergraduates for a number of years.

ACADEMIC TRAINING

Tel. 2844-3364

9, 10 & 11 May

11.00 to 12.00 hrs – Auditorium

Materials for advanced technologies

by M. VAN DE VOORDE / Joint Research Centre, Petten

Structural materials are the building blocks in the successful developments of advanced technologies and industrial innovation. It will be demonstrated that materials presently operate at the limit of their capability. The importance of modern materials will be illustrated by examples taken from aerospace and aeronautics, the chemical industry, energy conversion and utilization, the automobile industry, nuclear technology. An overview of materials research in the industrial nations in the World will be given with emphasis on the efforts in Western Europe. Polymeric materials, metals and alloys, engineering ceramics, protective coatings and new composite materials will be reviewed. The course will focus on modern materials and new materials technologies. Although information will be given on materials processing research, the lectures will concentrate on the behaviour of materials in service and study the mechanical, physical and corrosion property degradation and failure mechanisms, in view of the determination of the reliability and life-time prediction of engineering components. New developments in technologies e.g. joining, non-destructive testing, etc., will be reviewed. The lecture series will conclude with directions for future materials R&D and give prospects for new materials in the next decade.