

MODIFICATIONS AU REGLEMENT DU PERSONNEL

- **Les Statut et Règlement du Personnel** en vigueur depuis le 1^{er} janvier 1996 ont été modifiés dans le domaine suivant avec effet au 1^{er} avril 1997 : *Programme de retraite progressive*
- **Circulaire administrative n° 6 (Rév. 1) – Juin 1997**
La procédure de réexamen
Cette circulaire, précédemment intitulée "La médiation", a été modifiée.

Des exemplaires de ces mises à jour sont disponibles auprès des secrétariats de division.

N.B. Ces documents sont accessibles pour consultation sur le serveur Novell SRV4_HOME, volume PE Division Data Disk. Les fichiers Word se trouvent dans le dossier COM, sous-dossier Public.

Division du Personnel
Tél. 74128

CHANGES TO THE STAFF REGULATIONS

- **The Staff Rules and Regulations** in force since 1 January 1996 have been modified as from 1 April 1997 in the following area : *Progressive retirement programme*
- **Administrative Circular N° 6 (Rev. 1) – June 1997** :
Review procedure
This circular, formerly entitled "Mediation", has been amended.

Copies of these updates are available in the Divisional Secretariats.

Note These documents are available for consultation in the server Novell SRV4_Home, volume PE Division Data Disk. The Word files are available in the folder COM, folder Public.

Personnel Division
Tel. 74128

SEMINARS SEMINAIRES

Pour de plus amples informations, prière de consulter
For full information on these seminars, please see
<http://wwwas.cern.ch/Bulletin/Seminars/current.html>

IT TRAINING PROGRAMME IN 1997

The IT Training Programme is a follow-up of the popular "UMTF Computing Tutorials" series organized in 1995 and 1996. The new Programme starts in July with a set of PC-related lectures which are outlined below.

In order to continue to schedule tutorials on the subjects you want, we have prepared a short questionnaire which we would like you to fill in and return to us. You will find a pointer to this questionnaire on our Training Web Page at URL:

<http://wwwinfo.cern.ch/support/training>

Please help us by answering this questionnaire, or send your suggestions to the following address: IT-Training.Service@cern.ch

1997 Schedule

All seminars will be given in English unless stated. Those courses given in French will often be based on overheads and handouts in English. Please see the WEB pages referred above for further details.

Miguel Marquina / User Support – IT Division

Monday 30 June

COSMOLOGY MEETING

at 14.00 hrs – TH Conference Room

New measurement of the Hubble constant from galaxy diameters

by Martin A. HENDRY / University of Glasgow

An accurate and definitive calibration of the extragalactic distance scale remains one of the outstanding problems of observational cosmology. A number of recent determinations of the Hubble constant, by a variety of different distance indicators, suggest that a degree of consensus is at last emerging in this field in favour of a value of $H_0 \sim 60 \text{ kms}^{-1} \text{ Mpc}^{-1}$. In this seminar we review recent measurements of the Hubble constant, setting them in the broader context of current astrophysical estimates of the age of the Universe, and measurements of the cosmological density parameter and the cosmological constant. We then describe our recent work determining H_0 from measurements of galaxy diameters in the RC3 redshift catalogue, calibrated using HST-determined distances and isophotal diameters of spirals in the Local Supercluster. We show that our results are consistent with the moderately 'long' distance scale (i.e., $H_0 \sim 60$) favoured by many recent observations, although in fact the simplest interpretation of our results favours a somewhat smaller value of $H_0 \sim 50$. If this latter value proves to be correct, then the standard model – with $H_0 = 50$, $W_0 = 1$, $L_0 = 0$ – appears consistent

with astrophysical age determinations and with observations of supernovae at high redshift.

Monday 30 June

TECHNICAL PRESENTATION

at 14.00 hrs – IT Auditorium, bldg 31/3-004-5

Software for Building Large, Complex, Distributed, Mission-Critical Command & Control Applications

by Edward GOLDSTICK / UNITECHNIC SA (France)

UNITECHNIC SA distributes and supports a range of software solutions for developing large, complex, graphical, distributed, mission-critical command-and-control applications destined for deployment on a variety of Unix platforms as well as Windows 95/NT.

Since 1988, UNITECHNIC has contributed to large-scale projects at CERN such as graphical display systems for operational monitoring of SPS/LEP as well as the newly developed Technical Data Server.

In this seminar, we will focus on two approaches to building and deploying graphical user interfaces for monitoring complex processes:

- DATAVIEWS and XPRESSO integrated with TCL/Tk on Unix, Windows 95/NT, and Web Browsers...
- SMARTSOCKETS and NOTIFY : Message-oriented middleware and distributed event-based systems...

In addition, other products proposed by UNITECHNIC will be presented:

- CENTRO, a development environment for building visual programming languages.
- SIMBA EXPRESS, a middleware for applications with multiple ODBC databases
- IBT-AUTHOR, a development and deployment environment for Internet-based Training.

Information: E. Goldstick / Tel +33 0169911600
ed@unitechnic.fr

Monday 30 June*

COMPUTING SEMINAR

at 14.30 hrs – Conference room bld. 40/SS-D01

Software Engineering for Scientific Software Development

by G. PAWLITZEK / Deutsche Forschungsanstalt fuer Luft- und Raumfahrt

The products and services of science and research organisations and enterprises are increasingly based on software. This trend results not only from the increasing utilisation of computer simulation replacing or at least supporting experiments, but also from new software intensive science and research domains. This trend goes hand in hand with an increasing demand for large and more complex, interdisciplinary software systems. Due to this trend, science and research organisations today spend significant amounts of their resources for the development and maintenance of software systems. Thus, the achievements, effectiveness, and efficiency of science and research organisations depend largely upon the productivity and quality achieved in the software development and maintenance process.

Increasing expectations with regard to a speedier technology transfer of research results into industrial products enforce close cooperation of research organisations with

each other as well as with industry. This international collaboration in software specification, implementation, and operation of large, complex software systems requires the introduction and systematic application of state-of-the-art as well as leading edge software engineering and software quality assurance standards, methods and tools.

This presentation explains the strategy and concepts developed for the establishment of a software engineering service center for scientific software development at the Deutsche Forschungsanstalt fuer Luft- und Raumfahrt (DLR) e.V., i.e. the German Aerospace Research Establishment. It describes the managerial as well as technical approach adopted as well as the know-how and services offered by this service center. In addition, the experience gained as well as lessons learned during the introduction and application of state-of-the-art software engineering standards, methods and tools in research projects of different size and from different application domains are described. Finally, the future perspective of this software engineering service center for scientific software development is given, presenting the European Facility for Applied Software Technology (EUROFAST), a European Commission funded competence center, that supports industry as well as small and medium size enterprises focusing on high technology products and services, but also science and research organisations and projects, in process improvement for software development and maintenance.

* *Please note special date, time, and place*

Organiser : G.Kellner / ECP

Monday 30 June

PPE SEMINAR

at 16.30 hrs – Auditorium*

New results on atmospheric neutrinos from Soudan 2

by Hugh GALLAGHER / Oxford University

Measurements of the flavour content of the atmospheric neutrino flux provide a probe of neutrino oscillations. In this talk new results from Soudan 2 will be presented, based on an exposure of over 3 kton-yrs. This represents approximately a doubling of any previously reported exposure from an iron tracking calorimeter. The flavour ratio in Soudan 2 will be shown to be consistent with the results from the water Cerenkov detectors and inconsistent with the Monte Carlo expectation, providing further evidence that the "atmospheric neutrino anomaly" may be pointing the way to new physics beyond the Standard Model.

*Tea & coffee will be served at 16.00 hrs.

Tuesday 1 to Friday 4 July

2ND EDOARDO AMALDI CONFERENCE ON GRAVITATIONAL WAVES

at 09.00 hrs – Auditorium

From 1-4 July 1997, CERN will play host to the 2nd Edoardo Amaldi Conference on Gravitational Waves, which will bring together scientists from all over the world involved in the various aspects of today's gravitational-wave research. The Conference aims to provide a forum for discussing the recent developments in this field and to promote coordinated efforts towards an international network of gravitational-wave detectors.

The Conference will consist of three and a half days of

plenary sessions at which invited talks and contributed papers will be presented.

Topics covered will include: interferometers and resonant-mass detectors; experiments in space; astrophysical sources; stochastic backgrounds; data analysis; and other aspects of today's gravitational-wave research. Mornings will be devoted to experiments and afternoons will include sessions on contributed papers, as well as "topical discussion sessions" on subjects such as discrete sources, sources and spectra of stochastic backgrounds, data analysis and instrumentation.

Up-to-date information on all aspects of the Conference can be found on the Web:

<http://www.cern.ch/Physics/Conferences/C1997/GravitationalWave/>

Tuesday 1 July

TECHNICAL PRESENTATION

at 09.30 hrs – IT Auditorium, bld. 31/3-004-5

FORESYS (FORtran Engineering SYStem)

by Alain EISENSTEIN / Ophrys Systemes, France

FORESYS (FORtran Engineering SYStem) is a set of tools (ADMIN, IDCM, FOREST) aimed at analysing, restructuring and documenting FORTRAN applications. FORESYS is suited to the following range of projects:

- Porting existing applications on new platforms
- Migration from FORTRAN 77 to FORTRAN 90
- Integration of new code into existing software
- Checking of consistency for concurrent development process
- Upgrade of older applications
- Development and validation of new code
- Auto generation of documented code & program interface encouraging code re-use.

Analysis Admin performs a global consistency check on variables, sub-programs and functions (inter-procedural checking).

Navigation DCM provides a powerful tool for visualisation, analyse and editing. Two navigation modes are available : by keyword or by error type.

Code Restructuring Forest (FORTRAN Restructurer) supports the input of programs written in FORTRAN versions ANSI 66 and 77, as well as programs with common proprietary extensions : include, do, while, do end do, accept, type, real x/1.0/, etc.

FOREST offers three output languages : F77, ANSI and F77 Extensions and converts source programs into FORTRAN 90.

<http://www.verilog.fr>

Organiser : S. Cannon / IT / 75036

Tuesday 1 July

LHCC COMPUTING BOARD

Open Session

at 10.00 hrs – Council Chamber

- 10.00 RD41 Status Report: Object Oriented software development for LHC experiments [MOOSE] (K. Bos)
- 10.50 RD44 Status Report: Geant 4: An Object-Oriented toolkit for simulation in HEP (S. Giani)
- 11.40 Presentation of the project on Videoconference tools (C. Isnard)

Monday June 30: G. Pawlitzek (DLR Germany) will give a seminar (see abstract in this Bulletin) on "Software engineering for scientific software development" at 14.30 hrs in the Conference Room 40/SS-D01

Tuesday 1 July

IT TRAINING TUTORIAL

14.00-16.00 hrs – IT Auditorium, bld. 31/3-004

Migrating from Macintosh to a PC environment

by M. MARQUINA / CERN-IT

You may be confronting the problem of moving from a Macintosh to a PC environment for whatever reason; this article is intended purely to help you technically in that transition, in order that the change in your habits is made as smooth as possible.

By making use of both a Mac and a PC for demonstrating the concepts, the tutorial will follow the basic areas outlined in an article published by the author in the CERN NewsLetter issue CNL 226.

Tuesday 1 July

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs* – Council Chamber**

Results and Future Plans from Super Kamiokande

by Takaaki KAJITA / Kamioka Observatory, Institute for Cosmic Ray Research, University of Tokyo

Super-Kamiokande is a 50,000 ton water Cerenkov detector. It started taking data in April 1996. Recent results from Super-Kamiokande on solar and atmospheric neutrinos will be presented. Also mentioned will be a long baseline neutrino oscillation experiment from KEK to Super-Kamiokande, which will start taking data in 1999.

* Tea & coffee will be served at 16.00 hrs.

** Please note unusual place.

Wednesday 2 July

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Light Higgs, light stops and electroweak baryogenesis

by Marcela CARENA / Fermilab

Thursday 3 July

SL SEMINAR

at 16.00 hrs – SL Auditorium, Prévessin, bldg. 864

The LEP synchrotron radiation telescopes

by Roland JUNG / CERN-SL

The four synchrotron radiation telescopes are the operational instruments for precision beam profile measurements in LEP, from which beam emittances are calculated. They operate in the spectral range from UV to IR.

To achieve the performance required for LEP operation, a number of improvements beyond the design of existing instruments were necessary.

After a brief summary of the specific characteristics of the synchrotron radiation relevant for the telescope operation, the main features of the optical set-up and of the specially developed CCD system will be described. The latter

includes, next to conventional operating modes, fast turn-by-turn beam image and profile acquisitions with the help of on-chip signal processing. Telescope auto-calibration with the wire scanner and luminosity detectors of the LEP experiments together with measurements of the machine optics functions are used to achieve sub-nanometer beam emittance precision and will be mentioned.

Finally, a summary of the system performance, implications of the recent energy increase of LEP, and spin-off will be given.

** Coffee and tea will be served at 15.30 hrs in front of the auditorium*

Vendredi 4 juillet

IT TRAINING TUTORIAL

10.00-12.00 hrs – IT Auditorium, bld. 31/3-004

Introduction à NICE 95 (en français)

par A. PACE / CERN-IT

Vous voulez savoir comment NICE 95 peut faciliter votre travail ? Venez voir une démonstration de l'environnement 32bit pour les ordinateurs personnels (PC) du CERN, base sur Windows 95. Cette présentation ne demande aucune connaissance préalable ni du PC ni de NICE et sera concentrée sur les services offerts aux utilisateurs des PCs au CERN.

The presentation will be given in French. Questions in English will be answered in English.

Friday 4 July*

LHC TECHNICAL SEMINAR

at 11.00 hrs – LHC Auditorium / bld. 30 (7th fl.)

Superconductors for fusion magnets; realizations, prototypes and current projects

by P. BRUZZONE / ITER Joint Central Team, Naka, Japan

Beside the two large tokamaks operating with superconducting magnets (T-15 and Tore Supra), a number of sizeable prototypes has been built (LCT, DPC, Polo) and three large coil systems are under construction (LHD, Wendelstein, ITER Model Coil): the main features of these projects are shortly reviewed with a summary of the operating conditions and performance requirement. The fusion magnets are the only application of superconductivity conceived to operate in a nuclear environment: the issue of the reliability has here an unprecedented impact on the design criteria. The approach to the conductor design is individually discussed, highlighting the evolution in the last two decades.

** Please note the unusual day and time.*

Monday 7 July

PPE SEMINAR

at 16.30 hrs – Auditorium*

Search for Leptoquarks at D0

by Greg LANDSBERG / FNAL

D0 has performed an optimized search for the first generation scalar leptoquarks (LQ) decaying into electrons and quarks with 100% branching ratio ($b = 1$), suggested as one of the possible explanations of the excess of high Q^2 events recently observed in ep collisions at HERA. Based on the entire Tevatron Run I eej data (123 pb^{-1}) we set the 95%

Confidence Level lower limit of 225 GeV on the mass of scalar $b = 1$ first generation LQ. This is the single most sensitive search for the first generation LQ; it rules out an interpretation of HERA data with the LQ's in a broad variety of models. A search for $b = 1/2$ first generation LQ in the enjj channel, as well as searches for the second and third generation LQ's, are also discussed.

**Tea & coffee will be served at 16.00 hrs.*

Tuesday 8 July

IT TRAINING TUTORIAL

14.00-16.00 hrs – IT Auditorium

Introduction to Excel

by J. PURVIS / CERN-AS

This tutorial is intended as a brief overview of one of the Microsoft Office components, Excel. It covers the following:

- A brief overview of Excel
- What's new & different about Excel
- From worksheets to graphics and charts
- Working with lists and analyzing data with Pivot Tables
- Taking your data to the Web
- An Introduction to Application development using Visual Basic from Applications

Tuesday 8 July

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

A Physicist's View of Prion Brain Diseases – Mad Cows and CJD

by Douglas R.O. MORRISON / CERN

The research of Carleton Gajdusek on a stone-age tribe in Papua New Guinea, who suffered from a mysterious disease, kuru, spread by cannibalism, is described and short extracts from his films will be shown. Some deaths from kuru are still occurring after 45 years. This disease is believed to be caused by an entirely new mechanism, not a virus or bacteria, but by a small molecule known as a prion that occurs naturally in many living forms. The Prion Only hypothesis of Stan Prusiner is discussed critically.

It has been calculated that 900,000 cows in Britain had the Mad Cow disease, BSE, but most were slaughtered before symptoms were recognised. This epidemic started with 10 cases in the first year, and finally 160,000 were officially classified as having BSE; it is now slowly dying out. The human epidemic, caused by a new version of Creutzfeldt-Jakob Disease, nvCJD, affects mainly young people, has just begun with 10 cases in the first year. The average incubation time may be about 14 years then death follows in one year, so the peak in the human epidemic in Britain is expected in about 2005. The situation in other European countries and in North America is reviewed.

Among subjects discussed are species barrier, public health, Alzheimer's, molecular genetics, and blood.

**Tea & coffee will be served at 16.00 hrs.*

Thursday 10 July

LARGE HADRON COLLIDER COMMITTEE

Open Session

at 09.00 hrs – Auditorium

09.00–09.40 Status of the LHC machine

09.40–10.50 CMS hadron calorimeter Technical Design Report
 10.50–11.20 *Coffee break*
 11.20–11.50 Status report from RD8: GaAs detectors
 11.50–12.20 Status report from RD46:
 Liquid scintillator capillaries
 12.20–12.50 Status report from RD48: Radiation hardening
 of Si detectors

Vendredi 11 juillet

IT TRAINING TUTORIAL

10.00-12.00 h – Amphithéâtre IT, bât 31/3-004

Introduction à PowerPoint (*en français*)

par A. PACE / CERN-IT

Vous préparez des présentations mais vous n'utilisez pas powerpoint ou vous voulez savoir comment bien l'utiliser? Venez voir une démonstration de Powerpoint pour savoir comment préparer rapidement des présentations efficaces. Cette présentation ne demande aucune connaissance préalable ni du PC ni de Windows ni de Powerpoint et montrera comment préparer une présentation, ou trouver des clipart, comment transformer votre présentation en HTML.

The presentation will be given in French. Questions in English will be answered in English.

FOR INFORMATION

UNIVERSITY OF GENEVA
 Particle Physics Department
 24, quai Ernest-Ansermet
 1211 Geneva 4
 Tel. 022 702 6273
 Fax 022 781 2192

Wednesday 9 July

PARTICLE PHYSICS SEMINAR

at 17.00 hrs – Stückelberg Auditorium

The Little Bang: Recreating the Early Universe in high energy heavy-ion collisions

by Ulrich HEINZ / University of Regensburg

I will give a general overview of the physics in the various stages of a relativistic heavy ion collision and of our search for the Quark-Gluon Plasma. I then summarize our present experimental knowledge about thermalization and chemical equilibration in such collisions. I will close with a discussion of two-particle Bose-Einstein correlations and a new estimate for the initial energy density reached in Pb+Pb collisions at the CERN SPS.

INFORMATIONS GENERALES GENERAL INFORMATION

AUX UTILISATEURS DE LA MESSAGERIE VOCALE

Pour informer vos correspondants de votre absence prolongée et éviter le blocage de votre messagerie par saturation, nous vous invitons à suivre les instructions qui figurent au dos de votre guide vert:

- Ouvrir votre messagerie: 72255 password
- Composez le 4 (Options personnelles dans le menu principal)
- Composez le 3 (Message d'accueil dans le menu option)
- Composez le 2 (absence prolongée dans le menu d'accueil)
- Entrez votre message d'absence, terminez par #

Vos correspondants pourront ainsi écouter votre message mais ne pourront pas déposer le leur.

Service Téléphone

TO VOICEMAIL USERS

In order to tell your correspondents that you will be away for some considerable time and to prevent your voicemail station from becoming saturated, we invite you to follow the instructions on the back of your green guide:

- Open your voicemail: 72255 password.
- Press 4 (personal options in the main menu).
- Press 3 (reception message in the option menu).
- Press 2 (prolonged absence in the reception menu).
- Enter your absence message, followed by #.

Your correspondents will be able to listen to your message but not leave their own.

Telephone service

DEUTSCHSPRACHIGE LEHRKRAFT GESUCHT

Die deutschsprachige Abteilung des Collège und Lycée International in Ferney-Voltaire sucht fuer das naechste Schuljahr eine Teilzeitlehrkraft mit 1. und 2. Staatsexamen fuer die Faecher Geschichte und Geographie.

Interessenten wenden sich bitte an die Leiterin der Abteilung, Frau Koeberle, Tel. 04 50 40 12 70.