

les études de marché et spécifications pour des contrats d'un montant supérieur à 200 kCHF.

– Plan à moyen terme de 1996

Le Comité de management a eu une présentation et une brève discussion d'idées préliminaires sur le plan à moyen terme de 1996. Sous réserve de l'approbation du Comité des directives scientifiques, du Comité des finances et du Comité du Conseil, le plan couvrirait la période de trois ans 1997-1999 au lieu de la période de quatre ans habituelle afin de ne pas préjuger de décisions en matière de planification à plus long terme à partir de l'an 2000 dans le cadre de l'examen prévu en 1997 de l'avancement et des ressources du projet LHC. Le Comité des directives scientifiques examinerait le document à sa réunion de mai et le texte définitivement mis au point serait officiellement soumis au Conseil et à ses comités en juin 1996. Le Directeur général a annoncé que, dans l'optique de l'examen de 1997, des travaux ont déjà commencé sur la préparation d'un plan à long terme sur dix ans.

– Membres du personnel retraités autorisés à poursuivre des activités sur le domaine du CERN

Le Directeur général a présenté, pour information, une liste des membres du personnel retraités autorisés officiellement à poursuivre leurs activités de recherche ou autres au CERN. Il a été convenu que la liste serait communiquée chaque année aux chefs de division pour information.

– Départ en retraite du Secrétaire du Directoire et du Comité de management

Le Directeur général a rendu hommage au travail accompli par le Secrétaire du Directoire et du Comité de management, N. F. Blackburne, à l'occasion de son départ en retraite du CERN.

would cover the three-year period 1997-1999 instead of the usual four-year period so as not to pre-empt any longer-term planning decisions covering the years from 2000 in the context of the scheduled 1997 review of LHC progress and resources. The Scientific Policy Committee would examine the document at its May meeting and the finalized text would be formally submitted to the Council and its Committees in June 1996. The Director-General announced that, in the context of the 1997 review, work had already started on preparation of a ten-year long-term plan.

– Retired Staff Members authorised to continue activities on the CERN site

The Director-General presented, for information, a list of those retired staff members who were officially authorised to pursue their research or other activities at CERN. It was agreed that the list would be circulated to Division Leaders for information once a year.

– Retirement of the Directorate and Management Board Secretary

The Director-General paid tribute to the work of the Directorate and Management Board Secretary N. F. Blackburne on his retirement from CERN.

SEMINARS SEMINAIRES

Mardi 23 avril – ERRATUM

PRÉSENTATION TECHNIQUE

à 14.00 hrs – Amphithéâtre AT, bât. 30, 7e étage

Consultation de normes techniques sur serveur CD ROM.

par AFNOR / LYON

(Veuillez prendre note que cette présentation aura lieu le 23 mai et non le 23 avril)

Monday 29 April

TECHNICAL PRESENTATION

09.30 hrs to 15.00 hrs – Bât. 13/3-005

Laser, Optical Measurement and Signal Analysis

by GMP SA CH-1020 Renens, representing Physik Instrumente (D), Compagnie des Senseurs Optiques (F), Martock ELLIOT (GB), Coherent (USA), Stanford Research Systems (USA), Burleigh (USA), ILX Lightwave (USA), TMC (USA), SDL (USA)

Items on demonstration:

Laser; Real-time wave meter, beam profiler, laser diodes and energy/power measurement. Spectroscopy; Miniature fibre optic spectrometer. Micro-positioning; LabView™ driven laser interferometer and micro-mechanical compo-

nents. Signal analysis; 102.4 kHz two channel network analyser. Vacuum; Residual gas analysers with quadruple probe, electronics control unit (ECU) and real-time Windows® software.

Language : English, French, German

Information : L.Abel / FI-A / 9561

Monday 29 April

TECHNICAL PRESENTATION

at 10.00 hrs – CN Auditorium, bldg 31/3-004-5

Eiffel: Programming by contract.

by Jacques SILBERSTEIN, consultant, Abstraction.

Part one: Basis's (1h30)

- Eiffel main objective: Reusable software components was the dream of author's language.
- Constraint: an industrial quality.
- Industrial quality: what does it mean for software industry?
- Eiffel foundation: Programming by contract
- Language: or method

Part two: Dream or reality.(15 min)

We will briefly scan the current availability of Eiffel technology. The main aspects are:

- the owner: NICE (and us)
- vendors
- standards
- education
- references

Part three: Questions and answers session.

Organiser : S. Cannon / CN / 5036

Monday 29 April

UMTF COMPUTING TUTORIAL

at 14.00 hrs – CN Auditorium, bldg 31/3-00485

Handling your Mail on Unix with PINE

by Alessandro MIOTTO

This tutorial will give you an introduction of how to handle your mail on Unix with the recommended mail agent pine. Topics treated are how to read messages and store them in one of several folders, how to write messages, use aliases for mail addresses, and how to receive and send non-text material by mail in the MIME attachment format.

Monday 29 April

PPE SEMINAR

at 16.30 hrs – Auditorium, bldg 500

A Precision Measurement of $\sin^2\theta_W$ Using Jetcharge Measurements to Control QCD Uncertainties

by Andrew HALLEY, Representing the ALEPH Collaboration, University of Glasgow, Experimental Particle Physics Group

A precise determination of the electroweak mixing angle in hadronic decays of the Z is described, where a variety of jetcharge measurements and techniques are used to control QCD uncertainties. Symmetry principles are employed in a series of simple hadronisation models which are forced to confront the data. Direct measurements of quark charge retention in heavy flavour decays are then combined with constraints from inclusive particle production to achieve a statistical and systematic precision of better than one part in a thousand.

Tuesday 30 April

TECHNICAL PRESENTATION

at 10.00 hrs – CN Auditorium, bldg 31/3-004-5

Linux on the Alpha Processor

by David RUSLING, Digital.

This talk gives a short history of the port of Linux to Alpha processor based systems. It looks at the differences between the Intel X86 processors and the Alpha processors. As well as describing PALcode it talks about how Linux is booted on an Alpha with particular reference to Milo - the Alpha Linux Miniloader that he wrote.

Milo could best be described as a freeware BIOS and console. The talk is not just technical, it describes why Digital should be interested in helping the port as well as where the port is now and where it is going in the future.

Biography:

David was born two weeks before they launched Sputnik and he graduated with 1st class honours degree in Computer Science in 1982. He worked at Prime Computers for two years before moving to Digital in 1985. Most of his life at Digital has been involved with bridges and routers but in 1992 he and three others formed the European Semi-

conductor Applications Engineering group. This group specialises in any activities which might leverage sales of Digital's chips. He has worked on Linux on Alpha for the last 16 months.

Organiser : S. Cannon / CN / 5036

Tuesday 30 April

SEMINAR ON NUMERICAL METHODS FOR FLUID FLOW

at 14.00 hrs – Bldg 54/2-035

Numerical accuracy and turbulence modelling in fluid dynamics simulations of hydro turbine systems.

by John BERGSTRÖM, Fluid Mechanics, Luleå University of Technology, Sweden

High precision optimisation of flow geometries is only possible with highly accurate simulation results. To obtain highly accurate results is not a simple task since the non-linear character of the equations of turbulent flows makes it impossible to derive exact error norms for the results.

In my talk, I will present results from a systematic study of the errors in computations of the 3-dimensional and swirling flow in the draft tube of a hydro power turbine. Several approximate error estimation methods are compared and a more accurate result is presumably predicted with Richardson extrapolation.

This job is a part of my PhD project "Turbine 99" where the goal is to optimize the geometrical shape of a complete turbine system and predict the performance with high accuracy.

I will also present some results from computations with advanced turbulence models (7-equation Reynolds Stress Modelling) of the flow in a curved channel. The results are compared to experimental data by Kim & Patel. This work was recently presented at the ERCOFTAC/IAHR-workshop in Paris from which I will give some of my impressions about the status in turbulence modelling.

More information can be obtained from Rikard Gebart, PPE/ATE (7786).

Thursday 2 May

CERN COMPUTING COLLOQUIUM

at 10.00 hrs – Auditorium, bldg 500

JAVA !

by Dr. Hellmuth BRODA, Technology Manager Switzerland, Sun Microsystems (Schweiz) AG

Today application delivery in the enterprise suffers from the diversity of operating system and hardware platforms. Applications are tied to each operating system and its platform. In contrast, Internet and the World Wide Web has started gaining overwhelming support as a provider of information display on all different platforms through the use of browsers.

Java extends this architecture neutral approach to small applications (applets) that can be transported on WEB pages and executed on the client hardware. Applets which are written for the Virtual Java Machine can be trusted, are compact and are executed on the Java enabled browser or an other interpreter.

This technology will enable us to move away from the desktop centric paradigm to true network computing and thus help saving on desktop expenditures and costs for software porting and installation. Java brings us "Software on Demand" and "Disposable Software".

For more information see: <http://java.sun.com>" (The Java Homepage)

About the speaker:

Hellmuth Broda is German and has a PhD in Biophysics from the Albert-Ludwig Universität in Freiburg (D) in 1978. More recently, he worked for Ciba-Geigy in the period 1985-1990 in the domain of Scientific Computing, then for Hoffmann-La Roche (1990-1995) as the responsible for International System Delivery. Since about a year, he is employed as "Technology Missionary" in Sun Microsystems, Switzerland.

Tea and coffee will be served at 09.30 hrs.

Thursday 2 May

UMTF COMPUTING TUTORIAL

at 10.00 hrs – CN Auditorium, bldg 31/3-00485

NICE + Windows/95 = NICE/95

by Alberto Pace

Don't know what NICE is ?

A PC user and want to know what Windows/95 can do for you ?

A demonstration of the new supported 32bit Windows environment for all the CERN personal computers (PC) will be given which is based on Windows/95. This presentation will assume little or no familiarity with the PC, or NICE, and will concentrate on the services being offered to the users of PCs at CERN. How NICE/95 can facilitate the work of all users, eventually becoming a universal desktop environment, will be demonstrated.

This seminar will be given in English and repeated on 23 May at the same time. A version in French will be given on Tuesday 7 May, also at 10.00 hrs.

Thursday 2 May

SL SEMINAR

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

The Control System for the SPS Power Converters

by Arend DINIUS / CERN

For controlling all the SPS power converters, 27 VME crates are installed. This modular system, known as Mugef, provides control for up to 64 power converters per crate. This presentation will describe how commands and status information is dealt with and also how reference functions for the power converter current regulation loops are generated. At the moment, a renewal of the system is underway, with the new system built around a PowerPC running the LynxOS real-time operating system.

The aim of this presentation is to give a generalised overview of the existing system and to highlight the advantages of the renewed Mugef, which will have to remain in service well into the 21st century.

* *Tea and coffee will be served at 15:30 hrs in front of the auditorium*

Friday 3 May

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Semileptonic $B \rightarrow \rho$ and π decays, lattice QCD and dispersive constraints

by Laurent LELLOUCH / Centre de Physique Théorique, Marseille

For reasons to be described, semileptonic $B \rightarrow \rho \ell \nu$ and $B \rightarrow \pi \ell \nu$ decays are difficult to simulate on the lattice: one typically obtains the relevant form factors in a limited range of q^2 around q_{max}^2 , where q is the four-momentum transferred to the leptons. In a first part, I will present lattice results for semileptonic $B \rightarrow \rho$ decays and show how the limited information obtained can nevertheless be used to extract, from experiment, the CKM matrix element $|V_{ub}|$ in a model-independent fashion. In a second part, employing semi-leptonic $B \rightarrow \pi$ decays as an example, I will describe how dispersive techniques can be combined with a kinematical constraint and lattice results to obtain model-independent bounds for the rate and the relevant form factors over the full kinematical domain.

Friday 3 May

LHC TECHNICAL SEMINAR

at 16.00 hrs – AT Auditorium, Bldg. 30 (7th fl.)

Accelerator Physics Aspects of LHC Design

by Jacques GAREYTE / SL

The LHC is designed to operate at the highest possible energy with the highest possible luminosity. As a consequence it will be the first machine to combine advanced superconducting technology with large beam currents. This poses interesting challenges to the Accelerator Physicist, not to mention the future operator. Ongoing studies to optimize performance within the constraints of cost and existing infrastructure are presented. They include lattice optimisation and means to control the effects of unavoidable magnet errors, collective instabilities, and particle losses.

Please note the unusual day.

Monday 6 May

PPE SEMINAR

at 16.30 hrs – Auditorium, bldg 500

Measurement of the W-mass with the D0 detector

by Marcel Demarteau/Fermilab

A precise measurement of the W-mass will be presented, based on 13 pb^{-1} of data collected with the D0 detector at Fermilab during the 1992-1993 $p\bar{p}$ Collider run at $\sqrt{s} = 1.8$ TeV.

A full description of the analysis will be given, paralleled by a discussion of the associated systematic uncertainties.

Tuesday 7 May

UMTF COMPUTING TUTORIAL

at 10.00 hrs – CN Auditorium, bldg 31/3-00485

NICE + Windows/95 = NICE/95 (en français)

by Alberto Pace

Thursday 9 May

UMTF COMPUTING TUTORIAL

at 10.00 hrs – CN Auditorium, bldg 31/3-00485

AFS Group Admin tools

by Rainer Toebecke

Thursday 9 May

LHC TECHNICAL SEMINAR

at 16.00 hrs – AT Auditorium, Bldg. 30 (7th fl.)

The LHC vacuum system and its holy screen

Oswald GRÖBNER / LHC Division