

Plonger dans les mers tropicales, se retrouver nez à nez avec des poissons exotiques, quoi de plus agréable ? Mais pour y arriver il faut d'abord apprendre à plonger... dans une piscine. Et, le club subaquatique est là pour vous aider.

Pour tous les débutants qui le souhaitent, des cours sont assurés de septembre à mai à la superbe piscine de Varembe, et de mai à septembre au Lac. Une sortie à Golfe Juan, sur la Méditerranée, récompensera leurs efforts, comme chaque année, en mai.

D'autres sorties sont régulièrement organisées dans les lacs de la région en Méditerranée, les mers chaudes et occasionnellement en mer Rouge.

Le club a une forte activité d'enseignement qui ne se limite pas aux débutants. En plus de permettre l'accès à la piscine trois soirs par semaines pour les plus aguerris, il organise des stages techniques d'orientation, de sécurité, etc. De plus, il assure la préparation aux brevets de niveau 1 à 3. Tous les ans, il forme même de futurs moniteurs. Ce côté enseignement est très important car, sans un bon encadrement, la plongée est une activité qui présente des dangers. Mais ce n'est pas un sport violent, il demande peu d'efforts physiques. L'aisance sous l'eau est surtout une question d'attitude et de contrôle de soi. C'est pourquoi cette activité remporte beaucoup de succès auprès des femmes.

Pour le prix de la cotisation, le club vous prête l'essentiel du matériel dont vous avez besoin. Et le prix des brevets est très compétitif car les moniteurs sont bénévoles.

contact :

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Diving into tropical seas, coming face to face with exotic fish, what could be nicer? But before you get to this stage you have to learn to dive... in a swimming pool. And the Diving Club is there to help you.

Courses are organised for interested beginners in the magnificent Varembe swimming pool from September to May, and from May to September in the lake. In return for their efforts, they will have the chance to join the annual trip to Golfe Juan on the Mediterranean in May.

Other outings are organised regularly to the local lakes, the Mediterranean, the warm-water seas, including the Red Sea from time to time.

The club is very strong on training, not only for beginners. As well as providing access to the pool three evenings per week for the most seasoned divers, it arranges technical induction and safety courses, etc. In addition, it organises the necessary

preparation for passing the first three levels of the diploma. Every year it even provides training for future teachers. This teaching aspect is extremely important as diving is a dangerous pastime without proper training and supervision. On the other hand, it is a non-violent sport, which requires little physical effort. Mastering this under-water sport is above all a matter of confidence and self-control, which explains its considerable success among women.

In return for your annual subscription fee, the club will lend you the main items of equipment you need. The cost of obtaining diplomas is very competitive as the teachers offer their services free of charge.

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SEMINARS SEMINAIRES

Monday 22 April

UMTF COMPUTING TUTORIAL

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

ADAM: How to organise your desktop

by Miguel LIEBANA & Raul RAMOS

ADAM 1.2 has been available on all UNIX services since May 1995 easing for users the migration to UNIX. ADAM is an icon-based graphical user interface which provides intuitive and friendly access to the CN recommended applications and simplifies the customisation and personalisation of the desktop.

This tutorial describes briefly the key concepts in ADAM and shows how to tailor ADAM to define the appearance

of your desktop. Special emphasis will be made on the new features in ADAM 1.3 which will be officially released by the end of April.

Tuesday 23 April

TECHNICAL PRESENTATION

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

SNiFF+, open multiplatform programming environment for C/C++, JAVA, CORBA IDL, FORTRAN

by Andreas PABINGER, TakeFive Software GesmbH

SNiFF+ is an open, scalable and multiplatform programming environment for C/C++, JAVA, CORBA IDL and FORTRAN. The main goal in developing SNiFF+ was to

create an efficient and portable programming environment with a comfortable user interface and special support for OO-programming. SNIFF+ supports the following development processes:

- Project and Code Management for Teams
- Version and Configuration Management
- Code Comprehension and Reverse Engineering
- Development: browsing, cross-referencing, design visualization, editing
- Documentation Building
- Build Management
- Debugging Support
- Tool and Control Integration

Agenda:

1. TakeFive Software GesmbH (10 Min.)
2. SNIFF+ - architecture and components (20 Min.)
Fuzzy-parsing-technology, Project management, CMVC integration, multi-developer teams Workspace, Code comprehension and reverse-engineering tools, Third-party tool-integration, SNIFF+ for C/C++/JAVA/ FORTRAN
3. Online presentation of SNIFF+ 2.0 (45 Min.)
4. Technical questions/discussion (Open)

See also:

<http://www.cern.ch/PTTOOLS/Sniff/>

for how to use SNIFF+ at CERN

<http://www.takefive.com/products.htm>

for more details on SNIFF+

Organiser : S. Cannon / CN / 5036

Mardi 23 avril

PRÉSENTATION TECHNIQUE

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

Consultation de normes techniques sur serveur CD ROM.

par AFNOR / LYON

Wednesday 24 April

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Electroweak phase transition, perturbative and lattice results

by Zoltan FODOR / CERN

The nature of the finite temperature electroweak phase transition is studied. Perturbative results are summarized. For realistic Higgs-boson masses - $m_H > 70$ GeV - the perturbative approach breaks down. Lattice results of the 4-dimensional model are presented.

Thursday 25 April

UMTF COMPUTING TUTORIAL

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

Migrating to a MAC

by Darudh BIRKER

The subjects to be covered will include the following, the exact contents depending finally on the demands of the audience.

Mail (QuickMail)

XEDIT -> (editors on the Mac)

TelNet / Fetch

Mac HFS & Finder

Excel

HTML publishing ?

Thursday 25 April

SL SEMINAR

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

LEP2: Requirements, Performance and Expectations

by Daniel BRANDT / CERN

The LEP 2 project is often understood as a simple increase of the beam energy. It will be shown that in reality this upgrade implies basic modifications such as the use of superconducting cavities and a completely new approach for the operation of the machine. After having reviewed the proposed solutions in very simple terms, a comparison between the physics requirements and our performance expectations will be presented.

The aim of this presentation is to provide a general overview of the problems and the related solutions retained for the LEP2 project. It is therefore mainly meant for non-specialists.

* Tea and coffee will be served at 15.30 hrs in front of the auditorium

Friday 26 April

TECHNICAL PRESENTATION

at 09.30 hrs – CN Auditorium, bldg 31/3-004-5

NuTCRACKER, The Shortest Route from UNIX and X/Motif to Windows NT & Windows 95

by A. MALALAN / Account Manager Softeco Sismat & Didier CASTUEIL / VP European Operations Datafocus.

NuTCRACKER is a complete, integrated product family for developers who want to move their Unix applications, both character based and X/Motif, to Microsoft's Windows NT and Windows 95 without costly and time consuming reprogramming. Using NuTCRACKER, developers can port their Unix application and maintain a single source code base for both UNIX and Windows.

NuTCRACKER provide UNIX tools, UNIX libraries and an X Server, right on Win32. Now, developers can simply compile their C or C++ source code and link it against the NuTCRACKER libraries - creating a native Win32 application that can take full advantage of powerful Win32 features like OLE and DDE.

Organiser : S. Cannon / CN / 5036

Friday 26 April

SPECIAL LHC TECHNICAL SEMINAR

at 11.00 – PS Auditorium Bldg. 6/2-024.

Liquid Helium Fluid Dynamics and Heat Transfer Studies

Steve Van SCIVER / Florida State University

The talk will review recent experimental and analytical work on liquid helium at the US National High Magnetic Field Laboratory at the Florida State University. Topics to be discussed will include forced single and two-phase flow and transient and steady state heat transfer. He II is of particular importance for the LHC, the largest cryogenic system using He II ever to be constructed.

Please note the unusual day, time and place.

Friday 26 April

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

On the determination of W and top quark masses

by Valery KHOZE / Durham University &
St. Petersburg Nuclear Institute

Accurate measurements of the W- and t-quark masses will allow extremely stringent tests of the Standard Model. The W-mass determination is one of the main objectives of LEP2. A precise study of top quark properties will require a linear electron-positron collider. An obvious requirement for the success of such precise measurements is a detailed theoretical understanding of the production and decay mechanisms. In particular, the effects resulting from the short lifetimes could be very important. One of the favoured methods of W and top mass determination is to reconstruct them in hadronic events. The QCD interference effects may partially wipe out the separate identities of the unstable particles and produce hadrons that cannot be uniquely assigned to either of them. In view of the high experimental precision aimed for, it is crucially important to understand how large the ambiguities can be. In this talk I concentrate on the QCD interconnection phenomena that may occur when two unstable particles decay and hadronize close to each other in space and time. It is shown that, at the perturbative level, the interferences are suppressed. To estimate the non-perturbative effects, the popular hadronization models are applied. Our conservative estimates demonstrate that in the foreseeable future accurate measurements of the W- and t-quark masses will not be jeopardized by the QCD interconnection effects. Other examples of practical importance and some open questions are briefly addressed.

Monday 29 April

TECHNICAL PRESENTATION

09.30 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 components. Signal analysis; 102.4 kHz two channel network analyser. Vacuum; Residual gas analysers with quadrupole 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.

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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

Monday 29 April

PPE SEMINAR

at 16.30 hrs – Auditorium, bldg 500

A Precision Measurement of Sin2θ_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 hr's – CN Auditorium, bldg 31/3-004-5

Linux on the Alpha Processor

by David RUSLING, Digital.

Organiser : S. Cannon / CN / 5036

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

Tea and coffee will be served at 09.30 hrs.

Thursday 2 May

SL SEMINAR

at 16.00 hrs – SL Auditorium, Preessin, 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,

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

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

Please note the unusual day.

POUR INFORMATION / FOR INFORMATION

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Wednesday 24 April

SEMINAR ON PARTICLE PHYSICS

at 17.00 hrs - Auditoire Stuckelberg

The LHC-B: A Dedicated Experiment to Study CP Violation in B-Meson Decays at LHC

by Dr Tatsuya NAKADA/PSI-Villigen

The origin of CP violation is one of the few remaining unanswered questions in elementary particle physics. It is now widely recognised that the B-meson system is the best place to examine whether CP violation can be accommodated within the framework of the standard model. A precision study of CP violation in B-meson decays may lead to a discovery of new physics. The LHC-B is a dedicated experiment to exploit the potential of LHC as the ultimate "B-meson factory". In this talk, the experimental set up and expected performances will be discussed.

LAPP

Laboratoire d'Annecy de physique des particules

Chemin Bellevue

F-74000 ANNECY-LE-VIEUX

Vendredi 26s avril

at 14.04 hrs – Auditorium du LAPP

"CALORIMETRIE ELECTROMAGNETIQUE DANS CMS"

par H. HILLEMANN

EDUCATION SERVICES EDUCATIFS

ENSEIGNEMENT GÉNÉRAL

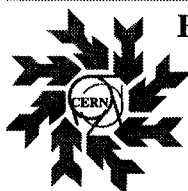
Tél. 5811

Jeudi 25 avril

à 13.00 h – Amphithéâtre

Science pour tous

par Rafel CARRERAS



ENSEIGNEMENT TECHNIQUE TECHNICAL TRAINING

Monique Duval ☎ 44.60

monique_duval@macmail

Information sur les cours, dates et places disponibles sur WWW :

Information about the courses, dates and places available on WWW :

<http://www.cern.ch/Training/>

Thursday 25 April

TECHNICAL SEMINAR

at 14.30 hrs – Room 13, Building 593

Magnetostrictive Force Actuators for High Precision Positioning

V.I. Rakhovsky (VMP LTD, Moskow, Russia)

Magnetostrictive actuators for positioning with subnanometer resolution (10^{-2} nm) in ranges up to 1 m have been developed and used. These actuators with 10 nm step can also be used as force actuators to deliver efforts up to 10^4 N. Precise displacements are set by active elements made of giant magnetostrictive alloys.

The actuators have been designed for precise manipulators and object tables, nanotechnology devices, adaptive optics, for the manufacturing of VLSI, Fresnel optics, diffraction gratings, etc. Low-power excitation of active elements is performed due to a unique patented method allowing for a drift of less than 10^{-3} nm/s without any temperature stabilization. The actuator consumes energy only during displacements.

It can be either operated manually without any external energy source, or by computer control. With manual control one can achieve steps of 3 nm, and with a reduction gear $15 \cdot 10^{-3}$ nm. Under computer control these values are 10^{-2} nm resp. $4 \cdot 10^{-5}$ nm. The dimensions of these actuators are 50 x 31 x 27 mm and 120 x 190 x 38 mm.

The author will give a demonstration of the micropositioner under various conditions.

This seminar is free of charge and no registration is necessary.