

SEMINARS SEMINAIRES

Lundi 24 avril

PRESENTATION TECHNIQUE

09.00-12.00 h – Bus démonstration, parking bât. 63 (PTT)

**Matériel de base "Bosch" pour
la construction d'ensembles mécaniques**

par NEW INGENIA, équipement industriel Bosch
(CH/D)

Liste des produits : profilés aluminium "Bosch", accessoires de montage et d'assemblage, pièces d'angles, roulettes pour chariots, exemples de structures, concept de places de travail, technique de transferts gestion du flux et des informations, etc.

Applications : ateliers de montage mécanique, laboratoires (chimie, tests mécaniques, protections), électricité (cage de Faraday, protections de personnes), bâtiment (barrières d'escaliers, isolements, panneaux d'affichage), production (chariots serveur d'établissements, convoyeurs lourds), robotique (supports de systèmes pour l'assemblage, etc.)

Langue : français

Renseignements: M. Diraison / FI-A / 4585

Monday 24 April*

TECHNICAL PRESENTATION

at 10.00 hrs – CN Auditorium, bldg 31/3-005

Etnoteam International

by Giuseppe SPADAVECCHIA

In today's complex world of software development, continuous product evolution requires that you manage an ever-growing mix of versions, variants and platforms. Now, more than ever, development teams must carefully select their configuration management tools in order to remain flexible, responsive and innovative. The presentation will take a detailed look at Configuration management issues and how a tool such as Continuous/CM (formerly known as CaseWare/CM) can address them. In particular, it focuses on how to save time and effort by improving the way in which integration and release configurations are prepared, and will examine how to improve quality by integrating defect reporting with your development process.

The presentation will show how to :

- Manage parallel development, identifying and resolving conflicting code changes as they arise.
- Resolve the problem of co-ordinating maintenance and development work.
- Deliver patches to an old release while developing a new one.
- Control multiple test and integration configurations without interrupting development work.
- Track problem reports to code changes and vice versa.
- Handle third-party code and software deliveries.
- Run a CM system which supports your software development process.
- Comply with international quality standards, such as ISO 9000.

The presentation will take approximately 40 minutes and will be followed by a demonstration of Continuous/CM which will also last 40 minutes. There will then be a time for questions and discussion.

Organiser : S. Cannon / CN / 5036

** Please note unusual day*

Monday 24 April

PPE SEMINAR

at 16.30 hrs – Auditorium

Measurement of the W mass at CDF

by David SALTZBERG / CERN-PPE

The direct measurement of the W mass is one of the few tests sensitive to new phenomena in the Electroweak Standard Model involving charged currents at high momentum transfer. A measurement of the W mass using the electron and muon decay channels of W bosons produced at the Fermilab Tevatron will be described. The mass is measured with the CDF detector, a combined magnetic spectrometer and calorimeter that allows many controls and checks of systematic effects, including the momentum and energy scales. This measurement has an uncertainty of 180 MeV, which is over a factor of two smaller than any other direct measurement.

Tuesday 25 April

TECHNICAL PRESENTATION

at 10.00 hrs – CN Auditorium, bldg 31/3-005

DB2 for AIX – Parallel Edition

by Bart DOZIE / IBM, AIX Group, Geneva

This presentation is an introduction to the IBM DB2 client/server exploitation of parallel technology. It describes the IBM implementation of a parallel database server using the shared-nothing hardware model and function-shipping, and how this approach provides a scalable database server that meshes with the IBM POWERParallel architecture.

Though not yet announced, DB2 for AIX – Parallel Edition has already undergone heavy duty testing at a number of customer beta sites. The results indicate outstanding capacity (over 100 Gb), scalability and performance figures.

Organiser : S. Cannon / CN / 5036

Wednesday 26 April

PS SEMINAR

at 11.00 hrs – PS Auditorium

**Development of Radio frequency Quadrupoles
for Argon Acceleration**

by G. INDREAS / Institute of Atomic Physics, Bucharest

Wednesday 26 April

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

**Disoriented and plastic soft terms :
a dynamical solution to the problem of
supersymmetric flavour violations**

by Gian GIUDICE / CERN

We postulate that the orientation of the soft supersymmetry breaking terms in flavour space is not fixed by physics at the Planck scale; it is a dynamical variable of the low-energy theory which depends on fields that have no potential. These fields can be thought of as either moduli or as the Nambu-Goldstone bosons of the spontaneously broken flavour symmetry which is non-linearly realized by the soft terms. We show that the soft terms align with the quark and lepton masses, just as spins align with an external magnetic field. As a result, the soft terms conserve individual lepton numbers and do not cause large flavour or CP violations. The vacuum adjusts so as to allow large sparticle splittings to coexist naturally with flavour conservation. Consequently, the resulting phenomenology is different from that of minimal

supersymmetric theories. We also propose theories in which the shape of the soft terms in flavour space is a dynamical variable of the low-energy theory. This dynamically leads to partial degeneracy among sparticles and further suppression of flavour violations. We compute the masses and couplings of the nearly massless moduli/goldstones and find that, at distances as large as ~ 30 m, they mediate potentially measurable long-range forces and violations of the equivalence principle. These ideas suggest a connection between the space of moduli and the spontaneously broken flavour group.

Wednesday 26 April

COMPUTING SEMINAR

at 16.00 hrs – CN Auditorium, bldg 31/3-005

**Central Data Recording for HERA Experiments
using a Distributed Hierarchical Mass Storage System**
by Michael ERNST / DESY

The DESY Computer Center is offering Central Data Recording Services to the HEP-Experiments performed at the various Colliders at DESY for more than 20 years. While an IBM Mainframe combined with a home grown "Online-Link" was used in the past, the recently developed scheme for serving the HERA Experiments' needs is based upon UNIX based "Data-Loggers", standard networking technology and a commercial Distributed Hierarchical Mass Storage System.

Michael Ernst is the head of a team working on Distributed Computing and Mass Storage Systems at DESY. He studied Electronics and Telecommunications at the Technical University Berlin and joined DESY in 1979. Since 1985 he is also responsible for DESY's internal and external network architecture.

Organiser : D. Kemp / CN

Wednesday 26 April

ISOLDE SEMINAR

at 16.00 hrs – TH Conference Room

**Very Proton-Rich Nuclei : Decay Studies of Interest
to Nuclear Physics and Astrophysics**
by E. ROECKL / GSI

By using the Online Mass Separator or the Projectile Fragment Separator at the heavy-ion accelerators UNILAC or SIS, respectively, the decays of very proton-rich nuclei such as ^{36}Ca , ^{37}Ca , ^{94}Ag , ^{101}Sn and ^{114}Ba were studied. The measurements were focused on β -decay properties, but included in the case of ^{114}Ba also a search for α and cluster radioactivity. The experimental data are compared to theoretical predictions, in particular to those obtained from the nuclear shell model. The results of this comparison are presented, and the relevance of the data to the astrophysical rp-process and to the calibration of the ^{37}Cl solar neutrino detector are discussed.

Jeudi 27 avril

PRESENTATION TECHNIQUE

09h00-12h00 et 14h00-17h00 – bât. 17/1-007

**Mano-détendeurs, centrales à inversion et
accessoires pour la mise en œuvre des gaz de haute
et très haute pureté, gaz corrosifs, mélanges techniques
et mélanges étalons**

par Linde Gaz Industriels (F/D)

Spécifications : acier inoxydable ou laiton chromé, simple ou double étage, moyenne et basse pression, faible et grand

débit, réglage précis voire très précis de la pression d'utilisation; possibilité de soupape de sécurité collectable; étanchéité empêchant toute contamination atmosphérique par diffusion du gaz; équipement hautement convertible par adjonction de débitmètres, vannes de réglage et autres accessoires

Utilisations : laboratoires de contrôle et d'analyse; ateliers de production; gaz porteur en chromatographie de masse; fabrication des semi-conducteurs, installation de process pour l'électronique; etc.

Langue : français

Renseignements : M. Diraison / FI-A / 4585

Thursday 27 April

TECHNICAL PRESENTATION

09.00-17.00 hrs – car park, bldg 907, Prévessin site

**Cryoclin, a new cea-patented technique
of decontamination**

by Linde Gaz Industriels, Division Cryoclin (F/D)

Ice pellets ($\varnothing \sim 1\text{mm}$) are blasted with compressed air on the surface to be treated such as moulds, machine tools, steel, glass, composites, plastics, etc. The combination of the thermal differential effect and kinetic energy leads to an excellent removal of grease, hydrocarbons, silicone, rubber, inks, oxides, etc.

Cryoclin, when compared to current cleaning techniques:

- consumes far less water (~ 80 l/h)
- allows easy effluent treatment (separation water/contaminant)
- requires no additional chemicals (demineralized water only)
- is non-abrasive to support materials
- is safe to users and environment.

Languages : English, French

Information : M. Diraison / FI-A / 4585

Jeudi 27 avril

PRESENTATION TECHNIQUE

à 10.00 h – bât. 582/R-010

**"Baghera", un logiciel d'archivage et de
consultation de données techniques multimedia**

par A. LABAT / PDG Espri Concept France

Baghera est un logiciel d'archivage et de consultation de données techniques multimedia, permettant un accès à partir d'un modèle graphique 3D à des documents, plans, photos, modèles mathématiques, modèles CAO, vidéo, etc.

Baghera gère différents points de vues métiers et différents profils d'utilisateurs.

Espri Concept, qui réalise et commercialise Baghera, présentera, à l'occasion de la démonstration, un prototype d'interface entre Baghera et W3.

Organisateur : S. Cannon / CN / 5036

Thursday 27 April

CERN COLLOQUIUM

at 16.30 hrs – Auditorium*

Early development of neutron scattering

by C.G. SHULL / MIT, Nobel Laureate in Physics 1994

A description of the early experiments and instrumentation problems starting in 1946 that led to the use of neutron scattering as a tool in augmenting and extending x-ray scattering from materials.

* Tea & coffee will be served at 16.00 hrs.

Tuesday 2 May

TECHNICAL PRESENTATION

at 10.00 hrs – CN Auditorium, bldg 31/3-005

Experience as a CERN software subcontractor

by M. PANIGHINI, / Societa Italiana Avionica

Organiser : S. Cannon / CN / 5036

Tuesday 2 May

TECHNICAL PRESENTATION

at 14.00 hrs – CN Auditorium, bldg 31/3-005

Technical Computing Environment –

Simulation & Visualization

by Bernhard PULVER & Daniel ZOLLER / COMSOL AG

Organiser : S. Cannon / CN / 5036

Thursday 4 May

TECHNICAL PRESENTATION

10.00-17.00 hrs – bldg. 17/1-007

Laboratory cryogenics and electronics

by Oxford Instruments GmbH, Scientific Research

Division (D/UK)

Languages : English, German

Information : M. Diraison / FI-A / 4585

Thursday 4 May

TIS SEMINAR

at 14.30 hrs – AT Auditorium, bldg 30/7-018

**Russian-Norwegian Joint Research Projects on
Environmental Radioactive Contamination in Russia,**

(a) at dumping sites for nuclear waste in the Kara Sea,

**(b) around the nuclear installation "Mayak" in the
Southern Urals**

by (a) G.C. CHRISTENSEN / Head of Health and
Safety Department and

(b) T.D. SELNAES / Head of Department's
Environmental Monitoring Section, of Institute for
Energy Technology, Kjeller, Norway Seminar
organised by TIS/RP.

Thursday 4 May

CERN COLLOQUIUM

at 16.30 hrs – Auditorium*

**The discovery of the deformed superheavy elements
107 to 111**

by P. ARMBRUSTER / GSI, Darmstadt

Vendredi 5 mai

PRESENTATION TECHNIQUE

09h00-12h00 et 14h00-16h00 – Amphithéâtre AT

bât. 30, 7^e étage

**La Gestion Technique Décentralisée, les bus de terrain
industriels**

par la société Wit (F)

Langue : français

Renseignement s: M. Diraison / FI-A / 4585

FOR INFORMATION / POUR INFORMATION / FOR INFO

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Wednesday 3 May

PARTICLE PHYSICS SEMINAR

at 17.00 hrs – Stuckelberg Auditorium

Observation of the top quark at CDF

by Xin WU / DPNC, Geneva University

EDUCATION SERVICES EDUCATIFS

ENSEIGNEMENT GÉNÉRAL

Tél. 5811

Jeudi 27 avril

à 13.00 h – Amphithéâtre

Science pour tous

par Rafel CARRERAS

Reprise des séances.

ACADEMIC TRAINING

Tel. 3127

24, 25, 26 & 28 April

11.00 to 12.15 hrs – Auditorium

B-Physics, now and future

by T. NAKADA / Paul Scherrer Institute, Willigen, CH

The b-quark surprised us already twice. Unexpectedly large B-meson lifetimes told us that the third generation of the quark pair mixed very little with others. The later discovery of large B^0 - B^0 mixing showed us that the top quark mass was much larger than expected. There could be a third surprise, may be in CP violation. In this lecture series, we quickly review the past and present of B-physics. This is followed by a more detailed discussion on future, in particular CP violation studies with future accelerators.