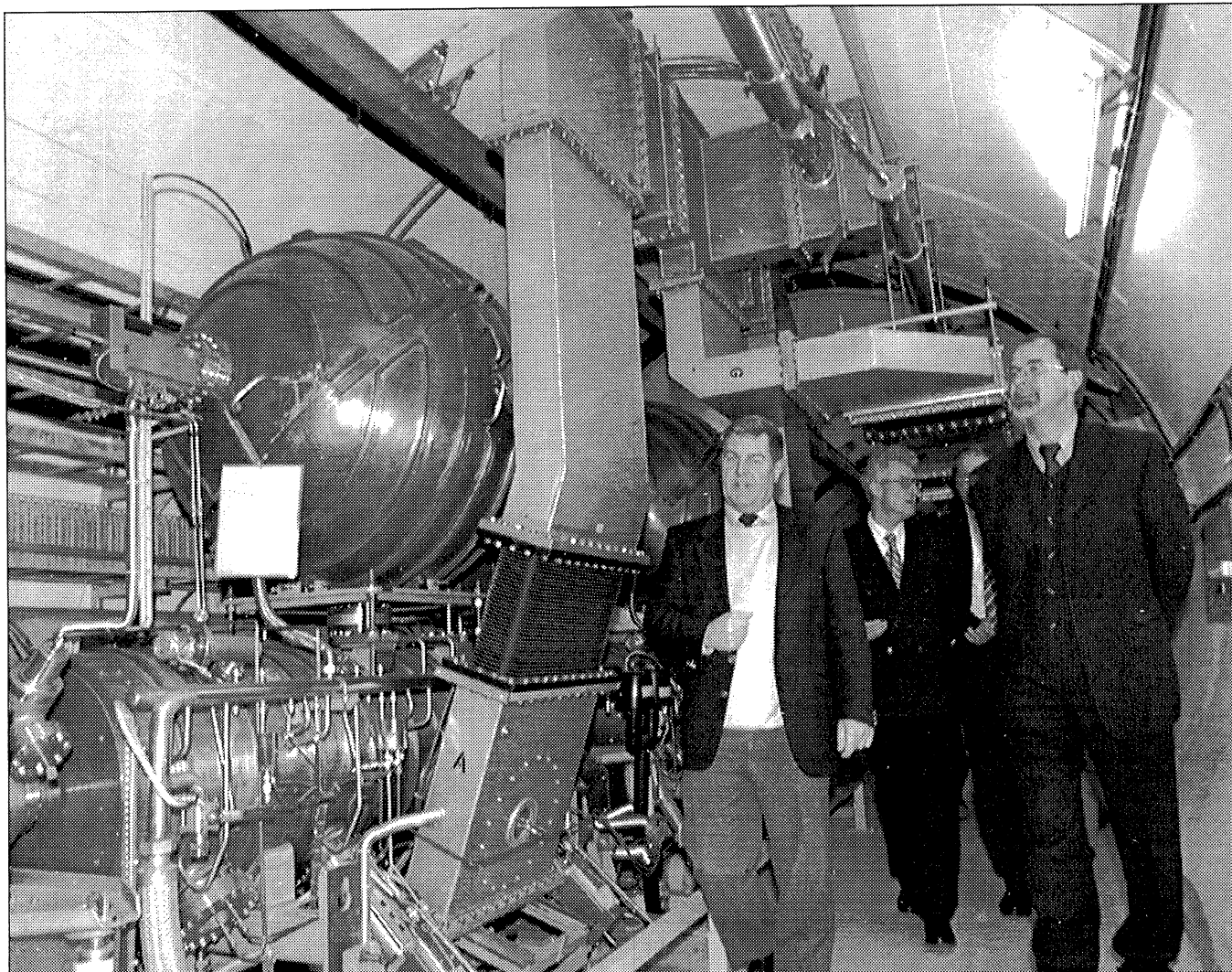




Karl Heinz Kissler (à gauche) guide le Secrétaire d'Etat Helmut Stahl, du Ministère allemand de l'éducation, de la science et de la recherche, dans le tunnel du LEP. A l'arrière-plan se trouve M. Hans Eschelbacher, le nouveau président du Conseil.

Karl Heinz Kissler (left) guides State Secretary Dr. Helmut Stahl from the German Ministry for Education, Science and Research through the LEP tunnel. In the background is Dr. Hans Eschelbacher, the new President of Council.

SEMINARS SEMINAIRES

Monday 26 January

COSMOLOGY MEETING

at 11.00 hrs* – TH Conference Room

Time, in general and in cosmology

by Robert BROUT / Université Libre de Bruxelles

* Please note unusual time!

Monday 26 January

COSMOLOGY MEETING

at 14.00 hrs – TH Conference Room

Using the cosmic microwave background to discriminate among inflation models

by Will KINNEY / Fermilab

Vous pouvez aussi consulter

For information on these seminars, please see

<http://wwwas.cern.ch/Bulletin/Seminars/current.html>

NASA's MAP and the ESA's Planck Surveyor satellites will measure fluctuations in the cosmic microwave background with unprecedented accuracy. In this talk, I discuss the question of how useful these measurements will be for the job of falsifying (or confirming) models of inflationary cosmology.

Monday 26 January

EP SEMINAR

at 16.30 hrs – Auditorium*

Λ , Ξ and Ω production in Pb-Pb collisions at 158 A GeV/c

by Alv Kjetil HOLME / CERN-EP

Enhanced production of strange baryons and anti-baryons at central rapidity in S-W and S-S collisions with respect to

p-A collisions have been reported by the CERN experiments WA85 and WA94. The WA97 experiment is extending this study Pb-Pb collisions using the newly developed silicon pixel detectors.

Results on Λ , Ξ^- and Ω^- production in Pb-Pb collisions at 158 A GeV/c at central rapidity will be presented. Cross sections and yields will be given as a function of the collision centrality and compared with those obtained from p-Pb collisions using the same experimental set-up.

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

Mardi 27 janvier

PRÉSENTATION TECHNIQUE

de 09.00 à 17.00 h – bât. 181

Soudage par ultrasons des métaux et polymères

par J. AUTHEMAN, P. SANCHEZ ET G. PEYRARD / FTI-Mecasonic

La soudure par ultrasons des métaux de faibles épaisseurs (maximum 2 mm pour le cuivre) et des matériaux polymères sera présentée.

Une démonstration sur le site aura lieu avec des exemples concrets d'exécution pour le CERN et les industries mécanique et électroniques.

Langues : français & anglais

Information : A. Jacquemod / LHC-CRI / 163253

Tuesday 27 January

CERN HEAVY ION FORUM

at 14.00 hrs – Auditorium

Highlights from Quark Matter '97

by Daniel FERENC / CERN-EP, Carlos LOURENCO / CERN-EP & Helmut SATZ / Bielefeld

We will review some of the topics presented at the Quark Matter '97 Conference, held last December in Japan, with some emphasis on the new indications that a state of very dense matter has been produced in high energy heavy ion collisions at the CERN SPS.

Information <http://wwwinfo.cern.ch/a/alicedoc/www/chic/>

Organisers: Y. Foka and C. Lourenço

Wednesday 28 January

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Clusters of galaxies as probes for dark matter model

by Stefano BORGANI / INFN, Perugia

In my talk I will briefly review scenarios of cosmic structure formation in different Dark Matter (DM) models. In this context I will mention the main failures of standard CDM and how alternative models improve over it. Afterwards I will concentrate on clusters of galaxies as crucial observational tests for DM models. After a short review of the information provided by their distribution on scales of about 50 Mpc/h, I will concentrate on the stringent constraints coming on smaller scales (about 10 Mpc/h) from their abundance. In the light of the most recent observational results, I will discuss how, combining information on their local (i.e., $z = 0$) abundance and its evolution at $z > 0$, it is possible to obtain in principle both the amplitude of the DM density fluctuations on the cluster scale and the value of the cosmological density parameter.

Friday 30 January

IT TRAINING TUTORIAL

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

Introduction to JavaScript

by Rui Paulo DA SILVA LEITE / CERN-IT

JavaScript is an object-based scripting language developed by Netscape but publicly available. It brings interactive and dynamic programming into HTML. It can be used to reduce much of the network traffic and server requests in handling forms. JavaScript is suited to implement small and simple programs, and is specially designed for repetitive, event-evoked tasks, specially validating form information. A good working knowledge of HTML and programming experience is needed for this tutorial.

Some of the topics addressed in this tutorial are:

- JavaScript and Java
- The Object Hierarchy
- Data and Information
- Events in JavaScript
- Creating Interactive Forms
- The use of JavaScript at CERN
- What's new with JavaScript 1.2

This is a repeat of the course given last December.

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

Organisers: M.Marquina and R.Ramos /IT-User Support

Friday 30 January

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Neutrino masses and mixing angles: too many clues?

by Haim HARARI / Weizmann Institute

While the masses of the three neutrinos could be anywhere below their direct limits (25 MeV; 160 keV; 5 eV), they are likely to be at the eV level or well below it. Clues from solar and atmospheric neutrinos and from accelerator and reactor oscillations, seem contradictory. We discuss possible solutions, all of which require that some experimental results must be ignored.

Tuesday 3 February

TECHNICAL PRESENTATION

at 09.00 hrs – PS Auditorium, bld. 6/2-024

The new P-CAD 13 Library

by Chris ECK / CERN-IT-CE, Gerard SCHNELL / Connexe SA & Jean-Louis CHOUVET / CERN-PS-PO

The new P-CAD 13 component library has been implemented with the help of Connexe SA. Gerard Schnell will present the structure and the advantages of this unique library for all P_CAD users at CERN. Jean-Louis Chouvet will present how users can obtain the introduction of new components into this library. Chris Eck will speak about the plans for the general introduction of P-CAD 13 at CERN. All P-CAD users at CERN are cordially invited.

The presentation will be given in French.

Organiser: Chris Eck 74260

Tuesday 3 February

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Present experimental status of the CKM matrix

by Achille STOCCHI / LAL, IN2P3-CNRS Orsay

A review of the current status of the Cabibbo-Kobayashi-Maskawa matrix is presented. A special emphasis is put on the determination of the ρ and η parameters from the measurements of Δm_{c} , $|V_{\text{ub}}|$, $|V_{\text{cb}}|$ and from the limit on Δm_{s} . From these results the values of $\sin 2\beta$, $\sin 2\alpha$ and of the angle γ can be deduced. The distribution of Δm_{c} can be also obtained, showing that the present analyses are situated in a high probability region for a positive signal, which may be observed at LEP. Results are also presented in terms of the angles θ , θ_{w} , θ_{d} and ϕ proposed in the CKM matrix parametrisation of H. Fritzsch and Z.-z. Xing.

*Tea & coffee will be served at 16.00 hrs.

Wednesday 4 February

PS SEMINAR

at 11.00 hrs – PS Auditorium, bld. 6 2-024

Muon collider progress

by Robert PALMER / BNL, U.S.A.

The technical problems of muon colliders are being studied by a collaboration of more than 100 members at BNL, FNAL, LBNL, Novosibirsk and other institutions. Earlier studies considered the design of a 4 TeV collider with luminosity of $10^{35} \text{ cm}^{-2} \text{ s}^{-1}$. More recent efforts have concentrated on the design of a 100 GeV machine designed to make Higgs particles in the s-channel. Muon production, cooling scheme, acceleration to final energy, collider ring and detector background will be presented.

Organiser: Bruno Autin

Thursday 5 February

COMPUTING SEMINAR

at 09.30 hrs* – IT Auditorium, bldg 31/3-005

Conference summary reports for ICALEPCS97

by CERN controls experts

The International Conference on Accelerator and Large Experimental Physics Control Systems (ICALEPCS97) was held in Beijing in November 1997.

ICALEPCS97 covered the field of controls of particle accelerators, particle detectors, telescopes and nuclear fusion devices with a strong emphasis on engineering aspects.

During this seminar summary reports will be given by some CERN's controls experts who attended the conference. This should allow those control experts who did not attend the conference and who are involved in the design of new control systems to hear about the new trends in the field of controls addressed at this conference.

Eight technical topics were selected, they will be presented and discussed as follows:

- Organisation, participation, statistics, etc.: A. Daneels/IT
- Networks, Fieldbuses : Raymond Rausch/SL
- Hardware, DSP : W. Heinze/PS
- Feedback control systems: Robin Lauckner/SL
- Databases: M. Lindroos/PS
- Integration of Industrial systems and PC based systems: Claude Henri Sicard/LHC
- OO, software sharing : Chip Watson
- Java, WWW: Chip Watson
- Project management: M. Vanden Eyden/SL
- Open discussion: Axel Daneels/IT
- Conclusion and follow-up: Guy Baribaud/IT

Organiser : G.Folger / IT

* Please note unusual DAY and TIME

POUR INFORMATION / FOR INFORMATION

LAPP – Laboratoire d'Annecy de physique des Particules
F74941 – Annecy-le-Vieux

Informations : Pascal Perrodo, tél. 04 50 09 16 00

Vendredi 30 janvier

SEMINAIRE DE PHYSIQUE DES PARTICULES

à 14.00 h – Amphithéâtre du LAPP

L'Astronomie Gamma au sol : progrès instrumentaux et résultats récents.

par Bernard DEGRANGE / XLPHNE Palaiseau

L'Astronomie Gamma s'est d'abord développée à partir de satellites, mais, en raison de la décroissance rapide des flux de rayons gamma avec l'énergie et des limitations des surfaces de détection disponibles, on ne couvre ainsi que le domaine en-dessous de 20 GeV. A plus haute énergie cependant se situe un enjeu majeur, l'origine des rayons cosmiques; les rayons gamma sont avec les neutrinos les seules particules neutres et stables qui permettent de remonter aux sources. Aux très hautes énergies, force est de travailler à partir du sol en utilisant l'atmosphère comme un grand calorimètre électromagnétique et en échantillonnant la lumière Tcherenkov émise par la cascade d'électrons et positrons créée par un rayon gamma.

Il a fallu attendre la fin des années 1980 pour disposer de techniques efficaces (imagerie et échantillonnage spatio-temporel du front de lumière) permettant de gagner au moins deux ordres de grandeur sur le bruit de fond largement dominant des rayons cosmiques chargés. On décrira les installations des groupes du Whipple Observatory (Arizona), de Cangaroo (Australie), de HEGRA (Canaries) et de Themis (site français des expériences CAT et CELESTE). Ces expériences couvrent aujourd'hui un domaine d'énergie allant de 250 GeV à quelques dizaines de TeV. CELESTE espère avoir dans sa phase finale un seuil de 20 GeV.

Depuis 1989, on a mis en évidence de façon sûre 3 sources dans l'hémisphère boréal (la Nébuleuse du Crabe et deux noyaux actifs de galaxies, Markarian 421 et Markarian 501) et au moins 2 dans l'hémisphère austral (PSR 1706-54 et Vela). En 1997, l'activité spectaculaire de Markarian 501 observée par les expériences du Whipple Observatory, de HEGRA et de CAT a souligné l'importance du domaine gamma des très hautes énergies pour comprendre les grands jets de plasma relativiste émis par certains noyaux actifs de galaxies. Des programmes d'observations multi-fréquences (radio, optique, X et gamma) sont maintenant programmés sur ces objets

Monday 9 to Friday 13 February
THEORY OF LHC PROCESSES
WORKSHOP
PRELIMINARY AGENDA, AS OF JANUARY 19 1998

Monday 9 February

14.00 to 18.00 hrs – Auditorium

- J. Huston: *Perspective from the Tevatron*
- Speaker to be announced: *A list of theory problems from ATLAS*
- Speaker to be announced: *A list of theory problems from CMS*
- Speaker to be announced: *A list of theory problems from LHCb*

Tuesday 10 February

09.00 to 10.00 hrs – Auditorium

- J. Stirling: *Structure functions*

10.30 to 12.00 hrs – TH Division Auditorium

- Special Topics Session: QCD
 - * M.Dittmar: *Towards a precise parton-luminosity determination at the LHC*
 - * Y.Dokshitser: *QCD in dense matter*
 - * Z.Kunszt: *Four-fermion final states in NLO QCD*

14.00 to 17.30 hrs – Auditorium

- W. Giele: *Jet physics*
- R.K. Ellis: *W & Z production*
- S. Catani: *QCD Resummations*

Wednesday 11 February

09.00 to 10.00 hrs – Auditorium

- M. Spira: *Production Properties of Higgs and SUSY particles*

10.30 to 12.30 hrs – TH Division Auditorium

- Special Topics Session: HIGGS production
 - * A.Djouadi: *Tests on the MSSM Higgs sector at the LHC*
 - * H. Dreiner: *$H \rightarrow W^+W^- \rightarrow \ell^+ \ell^- \nu \bar{\nu}$ in the SM and MSSM as a Higgs discovery mode*
 - * V.Ilyin: *Associated Higgs+jet and Higgs+ ℓ production as a Higgs discovery mode*
 - * D.Zeppenfeld: *Intermediate mass Higgs search via weak boson fusion*

14.00 to 17.30 hrs – Auditorium

- H. Baer: *New developments and perspectives on the MSSM*
- G. Kane: *More General Approaches to Learning SUSY Physics from Data*
- S. Ambrosanio: *GMSB models: what should we expect at the LHC?*

Thursday 12 February

09.30 to 12.00 hrs – TH Division Auditorium

- Special Topics Session: Supersymmetry
 - * F.Zwirner: *Signals of a super-light gravitino*
 - * J.Gunion: *Detection of delayed LSP decays at hadron colliders*
 - * T.Moroi: *Signatures of long-lived charged sleptons in GMSB*
 - * M.Krämer: *Neutralino pair production at NLO*

14.00 to 17.30 hrs – Auditorium

- Y. Nir: *B physics after the B-Factories*
- M. Mangano: *Heavy Flavour Production*
- S. Willenbrock: *Top physics*

Friday 13 February

09.30 hrs – TH Division Auditorium

- Special Topics Session: Beyond the Standard Model
 - * R.Casalbuoni: *Phenomenology of a decoupling model for the EW symmetry breaking*
 - * G.Jikia: *Anomalous vector boson couplings and χ_{PT}*

14.00 to 17.30 hrs – Auditorium

- B. Webber: *Monte-Carlos for the LHC*
- T. Sjostrand: *Matching partonic X-sections with shower MCs*
- M. Seymour: *MCs and jet spectroscopy*

All talks in the Main Auditorium will be 50' long.

“Special Topics” talks will be 25' long.

A 30' coffee break will take place after the second talk of the afternoon plenary sessions. Discussion sessions on the topics of the day will possibly follow the afternoon sessions, in the Main Auditorium.

Very few additional (particularly worthwhile!) short presentations could be added in the Special Topic sessions later on.