

Conclusions

Ces graphiques et ces données sont tirés du rapport annuel 1996 de la Caisse de pensions (CERN/2194-CERN/FC/3964), disponible dans les secrétariats de division pour les membres ou auprès de l'Administration de la Caisse (tél. 767 27 38) pour les bénéficiaires. Le rapport annuel contient des informations détaillées sur toutes les facettes de l'activité de la Caisse, que ce soit en matière de placements mobiliers ou immobiliers ou en matière d'évolution de la situation des membres et bénéficiaires ou encore sur les principaux sujets traités et sur le travail effectué par les organes de la Caisse. Si les questions touchant votre caisse de pensions vous intéressent, nous vous engageons vivement à lire le rapport annuel et à participer à l'Assemblée générale annuelle dont l'ordre du jour figure ci-dessus.

The English version will be published next week.

SEMINARS SEMINAIRES

Vous pouvez aussi consulter
For information on these seminars, please see
<http://wwwas.cern.ch/Bulletin/Seminars/current.html>

Tuesday 30 September

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

TeV astroparticle physics with the HEGRA experiment

by Victoria FONSECA / Univ. Complutense, Madrid

The HEGRA (High Energy Gamma Ray Astrophysics) experiment is a cosmic ray observatory located at the Roque de los Muchachos (2240 m altitude) on the Canary Islands, Spain. It measures charged cosmic particles and high energy gamma radiation in the energy range from 0.5 to 10,000 TeV. The experiment and its most recent physics results on the unexpected TeV gamma flares from Active Galactic Nuclei will be presented.

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

Wednesday 1 October

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Current issues in CP violation and strategies for extracting CKM phases

by Robert FLEISCHER / CERN

After a brief look at the neutral Kaon system, the status of CP violation in non-leptonic B-meson decays in view of extracting the angles of the unitarity triangle is reviewed. Both general aspects and recent developments including CP-violating asymmetries in B_d decays, the B_s system in light of a possible width difference $\Delta\Gamma_s$, charged B decays, and amplitude relations are discussed. Special emphasis is given to penguin contributions playing an important role in several strategies to determine CKM phases. It is pointed out that combined branching ratios for penguin-dominated $B \rightarrow \pi K$ modes, which have been observed recently by the CLEO collaboration, may allow us to derive interesting constraints on the CKM angle γ that could open a window to new physics.

Thursday 2 October

TECHNICAL PRESENTATION

09.00-12.00 hrs – ECP Conference Room, bld. 13/2-005

Handheld gauges for moisture, flow and oxygen measurements

by R. REIFSTECK / Panametrics GmbH (DE)

Panametrics' ultrasonic transit-time flowmeters utilise a sophisticated patented signal-coding technique in order to provide accurate flow rate measurement for liquids, natural gas, flare gas and stack emissions.

In the field of thermoparamagnetic and zirconia oxygen analysers, Panametrics has developed unique state-of-the-art designs for accurate measurement of oxygen and combustibles in processes and flues and has earned world-wide recognition for scientific advancement, innovation and reliability in the fields of non-destructive testing and process control instrumentation for measuring physical and chemical parameters.

Panametrics' Process Control Instrument Division (PCI) is clearly the world's leading manufacturer of aluminium oxide microprocessor-based hygrometers and other moisture measurement devices.

Language: German, English

Information: L. Abel / SPL-PS / 79561

Thursday 2 October

THURSDAY SEMINAR

at 14.00 hrs – TH Conference Room

The quasi-fixed MSSM

by B.C. ALLANACH / Rutherford Appleton Laboratory

Thursday 2 October

HEAVY ION FORUM

at 14.00 hrs – ECP Conference Room, bld. 13/2-005

Universality of thermal hadron production in high energy collisions

by Francesco BECATTINI

The average hadron multiplicities measured in high energy e^+e^- , pp, p $\bar{p}$ and nucleus-nucleus collisions are in agreement with a thermodynamical-statistical picture supplemented by an extra strangeness suppression factor. The freeze-out temperature is found to be around 170 MeV in all kinds of collisions. This finding supports a universal hadronization mechanism consisting in a critical local parton-hadron transition. The analysis of recent Pb+Pb collisions data is presented and the strangeness enhancement in heavy ion collisions with respect to elementary collisions is discussed.

Information <http://wwwinfo.cern.ch/alalicedoc/www/chic/>
Organisers: Y. Foka and C. Lourenço

Thursday 2 October

LHC TECHNICAL SEMINAR

at 16.00 hrs – LHC Auditorium, bld. 30/7

Development of High Field Dipole Magnets for Future Accelerators

by R.M. SCANLAN / for the LBNL magnet team

POSTPONED

Thursday 2 October

CERN COLLOQUIUM

at 16.30 hrs – Auditorium*

Understanding Neutron Stars through all Kinds of Astronomy

by Giovanni BIGNAMI / Istituto di Fisica Cosmica in Milan and University of Cassino, Italy
Winner of the 1993 Rossi Prize of the High Energy Division of the American Astronomical Society

Neutron stars are one of the end points of stellar evolution, with matter in extreme states and very high magnetic fields (10^{12} G). They can be studied mostly through their electromagnetic energy output, from radio to gamma-rays.

With intense use of ground- and space-based telescopes, an enlarging data base has been secured, leading to some new understanding of neutron stars emission physics. Geminga is the prototype neutron star by now: it is possible to distinguish well between its thermal and non-thermal emissions, to gauge its cm-high atmosphere (a first) as well as to measure *in situ* its magnetic field. Finally, a novel use of astrometric data will be seen to have a direct impact on the measurement of the rotational properties of neutron stars, related in turn to their magnetic field configuration.

Link to Rossi Prize:

<http://ssl.berkeley.edu/rossi.ecip.html#F>

Link to "Geminga":

<http://www.esrin.esa.it/htdocs/tidc/info/1996/9604.html>

*Tea & coffee will be served at 16.00 hrs.

Friday 3 October

IT TRAINING TUTORIAL

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

Basic Concepts in Object Oriented Programming

by Raul RAMOS-POLLAN / CERN-IT

This tutorial presents a simple explanation of the fundamental ideas behind the so-called Object Oriented Paradigm. With a general approach, it will provide you with the basic understanding to be able to think OO and learn OO languages and techniques. Aspects like maintenance and reuse of code, quality, and large projects design and implementation will be discussed within the OO framework, and some of the reasons behind such benefits will be outlined.

The talk will be general enough not to require any previous knowledge of any programming language but some insight in software development would be convenient. In the same way, the talk will give you the basics to learn any OO based methodology or language.

This is a repetition of the presentation given on July 22nd.

Tuesday 7 October

IT TRAINING TUTORIAL

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

Accessing UNIX Services from a PC

by Miguel MARQUINA / CERN-IT

PCs may be used to work on all centrally provided services and not only in the NICE environment. You may use them as X-terminals through the use of special connectivity software such as **Exceed** (currently recommended at CERN). This tutorial is intended as an introduction to the use of **Exceed**, presenting its basic configuration options and tips to follow on both the PC and UNIX sides. Attention will also be given to the way to interact and exchange information between the two worlds.

The presentation is aimed at novice PC users who require to work as well on UNIX Services such as CERNSP or HPPLUS; only basic understanding on how to set a PC application or the use of connectivity applications such as "telnet" will be expected.

Monday 6 October

PPE SEMINAR

at 16.30 hrs – Auditorium*

Leptoquarks and SUSY searches at CDF

by Xin WU / DPNC, University of Geneva

Recently there have been renewed interests in Leptoquarks and Supersymmetry due to the HERA high-Y event excess. In this presentation we report on the direct search for leptoquarks of three generations, using the 110 pb^{-1} integrated luminosity recorded by the CDF detector at the Tevatron collider during the 1992-1995 data taking period. We also present the results from searches for SUSY particles, with both R-parity conserving and R-parity violating decays.

*Tea & coffee will be served at 16.00 hrs.

Wednesday 8 October

COMPUTING SEMINAR

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

Analysis of an Asymmetric Polling System

by P.D. VYAVAHARE / S.G.S. Institute of Technology and Science, Indore, India

Polling models are used extensively to analyze the performance of a variety of systems that can be viewed as a distributed queuing system served by a single server and to evaluate their operational characteristics. In the context of computer communication, a Local Area Network (LAN) with controlled access on a single transmission media can be viewed as a polling system in which queues are being served in a cyclic order.

In this seminar, modelling and analysis of a high speed LAN with reverse round robin scheduling for channel arbitration, called M-net, is presented. It is modelled as a discrete time Markov chain representing an asymmetric polling system. Expressions for its performance measures like average channel utilization, mean and variance of delay and blocking probability at a station are derived. For a system of M stations, the solution complexity is of the order of $2^{2(M-1)}$. The analysis approach is applicable to both round robin and reverse round robin systems.

Finally, the performance measures of such a system are compared with that of Expressnet, as a representative example of round-robin system. It is found that at medium and high arrival rates, M-net outperforms Expressnet. The two systems have comparable performance otherwise. The analysis approach is applicable to the class of systems that can be viewed as multiple single buffer queues served by a server in round robin or reverse round robin fashion, such as scheduling of moving arms of a secondary storage devices, data transfer from a multi-drop line to central computer and load sharing in multi-processor systems. The analytical study can be used for performance evaluation and its improvement, system comparison and optimization.

Organiser : G.Folger / IT

Thursday 9 October

2ND ORACLE DEVELOPERS FORUM

at 09 00 hrs – IT Auditorium, bld.31/3-004

Agenda:

ACCIS – an object management system for accelerator modelling

by Josi SCHINZEL / CERN-EST/ISS

The Web Application Wizard

by Stephan PETIT / CERN-EST/ISS

A short report on the Oracle Open World - IT/ASD

Oracle Servers Configurations Update

by Nilo Segura CHINCHILLA / CERN-IT/ASD

Oracle Training News

by Genny FERRAN / CERN-IT/ASD

Open discussion period

For more information or comments:

<http://www.lhc01.cern.ch/odfi/index.html>

Thursday 9 October

SL SEMINAR

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

Strong Electromagnetic Fields in Crystals

by Ulrik MIKKELSEN / CERN-PS

Strong fields of macroscopic extension are available in crystals. The seminar will treat interactions of charged particles and photons with these fields. It will be demonstrated that crystals are unique tools in terms of investigations of fundamental effects such as quantum corrections to synchrotron radiation as well as for applications like deflection, focusing or efficient conversion of photons.

* Coffee and tea will be served at 15:30 in front of the auditorium

Friday 10 October

BOOK LAUNCH

at 16.30 hrs – Council Room, bldg 503

'The Quark Machines'

by Gordon FRASER / CERN

Institute of Physics Publishing, UK

This new book, covering the development of particle physics in the latter half of the 20th century, shows how big science reflects contemporary issues and explains how CERN has become the world focus for this research. The book will be on sale.

POUR INFORMATION / FOR INFORMATION

LAPP - Laboratoire d'Annecy de physique des Particules
F – Annecy-le-Vieux
Tél. 04 50 09 16 00

Vendredi 3 octobre

PARTICLE PHYSICS SEMINAR

à 14.00 h – Amphithéâtre LAPP

Présentation de l'upgrade du détecteur D0 à Fermilab
par Armand ZYLBERSTEJN / DAPNIA CEA (Saclay)