

SEMINARS SEMINAIRES

MONDAY 2 FEBRUARY

ISR SEMINAR

at 14.30 hrs - ISR Auditorium
(Top floor of Building 30)

"High-Performance Flexible Cryogenic
Helium Transfer Lines"

by Ph. Lebrun / CERN-ISR

CERN COMPUTER SEMINAR

at 14.30 hrs - Council Chamber

"Studies in Vector Processor Architecture
and Specific Applications"

by G. Paul / IBM Yorktown Heights, USA

Abstract : There exists a growing trend to vector/array processing architecture and machine organization in computer design as a means to enhance performance and price/performance in scientific computation. This talk will examine the underlying concepts behind this architectural evolution and will provide a taxonomy and an analysis of vector/array processor machine organization within the perspective of large scale scientific applications.

EP SEMINAR

at 17.00 hrs - Auditorium

"The Fermilab π - μ Atom Experiment"

by R. Cousins / CERN

Abstract : A π - μ atom is a Coulomb bound state of a pion and muon of opposite charge. Such atoms are formed naturally in about 10^{-7} of all K_L^0 decays. The probability of formation is proportional to the square of the π - μ atom wave function at the origin, and thus reflects the nature of the force between a pion and muon. This probability has been measured at Fermilab, where 300 π - μ atoms were detected.

TUESDAY 3 FEBRUARY

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs - Auditorium *)

"Low Mass Dilepton Production in
 π -Nucleon Interactions"

by W. Dunwoodie / SLAC

Abstract : Results are presented on the direct production of low mass ($<1 \text{ GeV}/c^2$) e^+e^- pairs in π -p interactions at 16 GeV/c observed using the LASS spectrometer at SLAC. Comparisons are made with $\mu^+\mu^-$ production at 16 and 225 GeV/c, and a conjecture as to the nature of the production mechanism is presented.

*) Note : Those attending this seminar are cordially invited to the Salle des Pas Perdus (just outside the Council Chamber) at 16.00 hrs to meet the speaker and for informal discussions. Tea and coffee will be provided.

WEDNESDAY 4 FEBRUARY

THEORETICAL SEMINAR

at 14.00 hrs - Theory Conference Room

"The Euclidean Approach to Quantum Gravity"

by G.W. Gibbons / DAMTP, Cambridge

Abstract : This talk consists of a description of the Euclidean approach to quantum gravity and supergravity theories in which one sums over positive definite metrics or manifolds with all possible topologies. I shall review the classification problem, problems with the sign of the action and possible discrete formulations of the theory, e.g., Regge calculus. I shall also discuss the classical stationary points - gravitational instantons. Finally, I shall review possible physical predictions.

CERN COMPUTER SEMINAR

at 16.00 hrs - Council Chamber *)

"Data Processing at DESY"

by V. Blobel / Univ. of Hamburg

Abstract : Data processing for the PETRA experiments at DESY is presented from the experimenter's point of view. Data collecting and magnetic-tape handling, software development via time-sharing terminals, as well as the structure of the off-line chain of analysis programs, will be discussed. A general system for memory management and input/output is being used by four collaborations in their experiments at PETRA. Experience with an interactive graphic system developed at DESY for detector/event display and for general physics analysis (histograms, scatter plots, curves) will be reported.

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THURSDAY 5 FEBRUARY

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs - Auditorium *)

"A New Method to Measure the Neutrino Mass"

by A. De Rújula / CERN-TH

Abstract : There are more than two methods to measure (or give an upper limit to) the electron neutrino mass, that are theoretically superior to the analysis of the endpoint of Tritium beta-decay. At least one of them is also likely to be superior in actual practice. I will reveal one of my secrets, and discuss it.

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MONDAY 9 FEBRUARY

ISR SEMINAR

at 14.30 hrs - ISR Auditorium
(Top floor of Building 30)

"Numerical Control Techniques for
Magnet Power Supplies", by

P. Wolstenholme - Introduction to the
Theoretical Aspects of the Problem

J.G. Pett - ISR CAMAC Power Supply
Control Hardware

D.F. Kemp - ISR Control Software

*Abstract : Techniques employed in digital
control systems to adjust multiple analogue
parameters are reviewed and illustrated by
means of the ISR magnet power supply control
system.*

EP SEMINAR

at 17.00 hrs - Auditorium

"The Streamer Tube System of the WA 18
Calorimeter"

by V. Valente / Univ. of Rome

TUESDAY 10 FEBRUARY

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs - Auditorium

"Experimental Study of Neutrino and
Antineutrino Cross-Sections"

by J. Panman / NIKHEF, CHARM Collaboration

TOPICAL CONFERENCE ON THE APPLICATION OF MICROPROCESSORS TO HIGH-ENERGY PHYSICS EXPERIMENTS

to be held at CERN, May 4 - 6, 1981

For administrative and organizational
reasons, CERN personnel must be treated in the
same way as external participants at this Confe-
rence. Those wishing to attend are asked to fill
in Application Forms available from :

Avis Hoekemeijer/DD or Terry Jones/EF.

The deadline for submission of papers has
passed. However, the deadline for applications for
ATTENDANCE has been extended to :

FRIDAY 20th FEBRUARY 1981.

After that date, further applications
cannot be considered.

TRAINING AND **EDUCATION** **ENSEIGNEMENT**

MONDAY 2, WEDNESDAY 4, THURSDAY 5 AND FRIDAY 6 FEBRUARY

ACADEMIC TRAINING

(Tel. 2844)

at 11.00 hrs - Auditorium

"Group Theories and Applications"

by P. Sorba / LAPP, Annecy
(Lectures 7 to 10)

MERCREDI 4 FEVRIER

VENDREDI 6 FEVRIER

ACADEMIC TRAINING

(Tel. 2844)

à 11h00 - Salle Théorie (Bât.4, 3e ét.)

"Physique des Matériaux"

par F. Lévy / EPF, Lausanne

Leçon 7 : Propriétés électroniques

Leçon 8 : Métaux.

Leçons 9 et 10, par F. Lévy / EPF, Lausanne:

Mercredi 11 et vendredi 13 février

à 11h00 - Salle Théorie.

JEUDI 5 FEVRIER

ENSEIGNEMENT GENERAL

(Tél. 2844)

13h00/13h30 - Amphithéâtre

"Science pour Tous"

par R. Carreras

FEBRUARY 10, 11, 12, 13, 16, 17, 18, 19

ACADEMIC TRAINING

(Tel. 2844)

"Electron Accelerators and Storage Rings -
Physics Introduction"

by A. Renieri / CNEN, Frascati

*Abstract : In these lectures we shall deal with
the main aspects of the physics connected to
the acceleration and storage of relativistic
electrons. Particular attention will be devoted
to a phenomenon which strongly affects the
electron dynamics, i.e. the synchrotron emis-
sion via magnetic Bremsstrahlung in bending
and wiggler magnets. Furthermore the same
phenomenon will be analysed from the point of
view of the production of coherent synchrotron
radiation (free electron laser in storage rings).*