

SEMINARS

SEMINAIRES

MONDAY 5 NOVEMBER

EP SEMINAR

at 17.00 hrs - Auditorium

"The Experimental Cross-Section of Dimuon Production and the Drell-Yan Model (NA3 Experiment)"

by S. Weisz/ CERN and Ecole Polytechnique

Abstract : NA3 has measured the absolute cross-section for dimuon production in hadron collisions in the Drell-Yan continuum ($4.2 \leq M < 8.5$ GeV/c). In all channels studied (pN , $\bar{p}N$, π^+N and π^-H_2), this cross-section is significantly larger, by a factor of about 2, than expected from the Drell-Yan model.

TUESDAY 6 NOVEMBER

CERN COLLOQUIUM

at 16.30 hrs - Auditorium (*)

"Is the Proton Stable ?"

by M. Goldhaber / Brookhaven National Lab.

Abstract : Fifty years ago Herman Weyl postulated that similar to the conservation law of electric charge there must exist a conservation law for the proton (Schwere Ladung), a law which was further elaborated by Stueckelberg and Wigner. It was later generalized into the law of conservation of baryons. Twenty-five years ago the first quantitative tests of baryon conservation were carried out which showed that the proton has a lifetime $\geq 10^{20}$ years. Since then this limit has been improved to $\geq 10^{30}$ years. Recent grand unification theories which attempt to unify strong, weak and electromagnetic interactions lead to the prediction of a possible decay of the proton. In the presently popular SU(5) theory a lifetime estimate for proton decay of $10^{31 \pm 2}$ years is obtained. Various groups have proposed experiments which should be able to test this prediction.

(*) Note : Those attending this colloquium 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 7 NOVEMBER

PS SEMINAR

at 11.00 hrs - PS Auditorium (Bldg.6)

"The CERN 50 MeV Linac"

by D. Warner / PS

Abstract : In December 1978, the new 50 MeV Linac took over as injector to the CERN accelerator complex. This seminar will present a brief survey of the linac design, based on papers submitted to the Montauk Linac Conference (September 1979) and concentrating on the unique features. A summary of experimental and operational results obtained since first 50 MeV acceleration will be included.

THEORETICAL SEMINAR

at 14.00 hrs - Theory Conference Room

"Rigorous Predictions on Heavy Quark-Antiquark Systems in the Framework of Potential Models"

by A. Martin / CERN-TH

Abstract : A few general inequalities on quark-antiquark systems bound by a flavour independent potential allow to obtain a number of tight upper and lower bounds on b and c quark masses, mass of toponium given the t mass, energy gap between oniums and continuum, masses of mixed flavour systems like (cs) (bc) (bs) .

CERN ENERGY SEMINAR - TECHNICAL LEVEL

at 16.30 hrs - Theory Conference Room

"Agrotherm :

- a cooling system as industrial alternative;
- the possibility to use waste heat in an efficient and ecologically beneficial way"

by W. Spiegel / Thyssen Engineering GmbH, Essen

Abstract : The introduction will deal with the latest state of cooling technology as far as power stations are concerned with all involved problems in regard of the environment and the power economy. The main part will first deal with the cooling system "AGROTHERM" in regard of its objective followed by a technical description. Within the description of research work done by Thyssen in the last few years, the specific problems of AGROTHERM and their promising attempts of solution will be disclosed. By way of an example (power station Niederaussem) site-specific planning of an industrial plant will be illustrated. Finally, other possibilities of application in respect of agrothermal cooling systems will be shown. The lecture will be accompanied by the projection of 5 to 10 slides.

THURSDAY 8 NOVEMBER

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs - Auditorium (*)

"Recent Developments in Lepton Pair Production by Hadrons"

by J. Pilcher / Enrico Fermi Institute, Univ. of Chicago and CERN

Abstract : Material for this talk is from the review given at the Fermilab Lepton-Photon Conference. Several areas of interest will be developed in more details.

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FRIDAY 9 NOVEMBER

CERN COMPUTER SEMINAR

at 11.00 hrs - DD Conference Room
(Bldg.31 - 3rd floor)

"A Retrospective Look at the Daresbury
Network"

by H. Kirkman / Univ. of London Computer
Centre

Abstract : The evolution of computing at Daresbury from the provision of on-line data acquisition facilities to the development of a fully integrated data acquisition and processing network will be traced, with emphasis on the part played by standards - in hardware, software and protocols. The direction such systems are now likely to follow will be discussed in the light of present trends in technology.

ESO ASTROPHYSICS SEMINAR

at 14.00 hrs - DD Conference Room
(Bldg.31 - 3rd floor)

"Abundance Problems and Transport Processes
in Stars"

by E. Schatzman / Nice

Abstract : Stellar rotations generate instabilities which can produce turbulent mixing at a very slow rate inside the stars. This reflects in surface changes of chemical composition of nuclear-processed elements inside the star. Examples are given concerning Li, Be and C.

(*) Please note change of day!

TUESDAY 13 NOVEMBER

PROTON SYNCHROTRON AND SYNCHRO-CYCLOTRON COMMITTEE

- Open Session

at 9.00 hrs - Council Chamber

- 1) Introductory remarks, by L. Van Hove.
- 2) Status reports :
 - SC 68 Muonic chemistry in condensed matter (Parma); PSCC/79-46/M35;
 - SC 81 Formation and interaction of muonium in insulators and semiconductors (CERN-Parma-Uppsala); PSCC/79-48/M37;
 - SC 82 Muonium and muons in synthetic polymers (CERN-London (Imperial College)-Parma-Rutherford Laboratory; C. Bucci).
- SC 65 Local magnetic fields in ferromagnetics studied by positive muon precession (CERN-Uppsala);
- SC 76 Muon diffusion in niobium in the presence of traps (CERN-Geneva-Uppsala-Jülich; PSCC/79-47/M36; E. Karlsson).
- 3) Future of the ISOLDE programme (PSCC/79-39/M31; 79-40/M32; P.G. Hansen).
- 4) Addendum to Expt. PS 163 : Search for narrow baryonium states near the $\bar{p}p$ threshold (Heidelberg-Saclay; PSCC/79-36/Add. to PSC/78-15/P11; T. Walcher).

Proposal : Search for Σ hypernuclear states using the strangeness exchange reactions (K, π^-) and (K, π^+) (Heidelberg-Saclay; PSCC/79-37/P10; 79-38/S10; W. Brückner).

- Closed Session

at 14.30 hrs - Sixth Floor Conference Room.

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs - Auditorium

"The First Year of MARK-J at PETRA"

by H.B. Newman / DESY

WEDNESDAY 14 NOVEMBER

CERN ENERGY SEMINAR - TECHNICAL LEVEL

at 16.30 hrs - Theory Conference Room

"History and Philosophy of Radioactive
Waste Management"

by R. Rometsch / National Cooperative
Society for the Storage of Radioactive
Waste Materials, Baden

THURSDAY 15 NOVEMBER

ISR SEMINAR

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

"Superconducting Cavity Oscillators and
their Application to Basic Physics"

by J. Turneure / Stanford and Wuppertal

(*) Please note time and date!

CERN ENERGY SEMINAR - GENERAL LEVEL

at 16.30 hrs - Auditorium

"Radioactive Waste in Switzerland -
where from, where to ?"

by R. Rometsch / National Cooperative
Society for the Storage of Radioactive
Waste Materials, Baden

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POUR INFORMATION / FOR INFORMATION

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VENDREDI 9 NOVEMBRE

SEMINAIRE DU LAPP

à 10h30 - Amphithéâtre du LAPP

Laboratoire d'Annecy-le-Vieux de Physique des
Particules, chemin Bellevue, Annecy-le-Vieux,
(Haute-Savoie, France)

"Le Projet $p\bar{p}$ au CERN"

par Denis Linglin / LAPP

Résumé : On expliquera la méthode de production des faisceaux (cooling, injection, etc.) et on décrira le programme expérimental dans son ensemble.

Renseignements complémentaires auprès de H.
Pessard/CERN-EP, Tél. 6526, ou Laboratoire
d'Annecy-le-Vieux, Tél. (023) 23.32.45, int.327.