

COMMUNICATIONS OFFICIELLES

OFFICIAL NEWS

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En cas de perte ou de vol de votre carte de légitimation/attestation de fonctions délivrée par le Ministère (français) des Affaires étrangères ou le Département fédéral (suisse) des Affaires étrangères, il convient de procéder de la manière suivante :

Carte de légitimation française

En cas de perte ou de vol (en France ou dans un autre pays), se rendre à la Brigade de Gendarmerie de Saint-Genis-Pouilly pour faire une déclaration; adresser le double de cette déclaration – avec deux photos – à la Division du Personnel (Bureau des Dossiers pour les titulaires, et Service des Boursiers et Attachés pour les autres membres du personnel).

Carte de légitimation /Attestation de fonctions suisse

En cas de perte ou de vol (en Suisse ou dans un autre pays), écrire au Commissariat de Police, bd Carl-Vogt 19, 1211 Genève 8; adresser une copie de cette lettre – avec trois photos – à la Division du Personnel (Bureau des Dossiers pour les titulaires, et Service des Boursiers et Attachés pour les autres membres du personnel).

Il est précisé que les Etats-hôtes ne délivreront aucun duplicata si cette procédure n'est pas respectée.

Relations avec les Pays-hôtes
Tél. 5152

LOSS OR THEFT OF 'CARTE DE LEGITIMATION' OR 'ATTESTATION DE FONCTIONS'

In case of loss or theft of a 'Carte de légitimation' or 'Attestation de fonctions' issued by the French Ministry of Foreign Affairs or the Swiss Federal Department of Foreign Affairs, the following action should be taken:

French 'Carte de légitimation'

In case of loss or theft (in France or elsewhere), go to Saint-Genis-Pouilly police station and make a statement; send a copy of the statement and **two photographs** to the Personnel Division (Staff Records Office for staff members and Fellows & Associates Service for other members of the personnel).

Swiss 'Carte de légitimation' or 'Attestation de fonctions'

In case of loss or theft (in Switzerland or elsewhere), write to the Commissariat de Police, bd. Carl-Vogt 19, 1211 Genève 8; send a copy of the letter and **three photographs** to the Personnel Division (Staff Records Office for staff members and Fellows & Associates Service for other members of the personnel).

Unless these procedures are followed, the Host States will not issue duplicates.

Relations with Host States
Tel. 5152

SEMINARS SEMINAIRES

Wednesday 18 August

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

The origin of cosmic rays – a proposal to explain particle energies, spectrum and chemical composition

by Peter L. BIERMANN / Max-Planck Institut für Radioastronomie, Bonn

The origin of cosmic rays is argued to derive from three main sources :

- 1) *supernova explosions into the interstellar medium;*
- 2) *supernova explosions into a stellar wind; and*
- 3) *radio galaxy hot spots.*

The key feature in this proposal is a derivation of the energy gain of energetic particles at shock fronts where the unperturbed magnetic field is perpendicular to the shock normal. The predicted resulting spectrum and particle energy range for the three major sites of particle acceleration are as follows: a spectral index of -2.75 and a particle energy range up to 100 TeV (hydrogen) for the supernova explosions into the interstellar medium; a spectral index of -2.67 below the knee in the cosmic ray spectrum, and -2.97 above the knee

for the supernova explosions into a stellar wind, with a particle energy range up to 3 EeV (for iron) and the knee bend of the spectrum near a few PeV. This component is strongly enriched in heavy elements. The extragalactic component is mostly Hydrogen, with an injection spectrum of 10^{-2} , and extends to about 100 EeV. The characteristic particle energies of the bend and cut-offs are proportional to charge, since they derive from geometrical considerations. The predictions are tested against radio data and air shower data in some detail. Predictions and a first set of tests were made in a series of publications, with the consequences for quasar physics being explored in further publications. Additional checks can be made with the new JACEE data, and with the TeV electron spectrum. We note that the proposal suggests an explanation of the chemical abundances of cosmic rays both at low as well as at high particle energies, and gives an adequate fit to the air shower data across the knee, i.e. from about 10 TeV to 100 EeV. A few next steps to continue testing the proposal will be suggested.

Friday 20 August

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Gauge-boson production in electron-photon collisions

by A. DENNER / CERN

I consider the processes $e^- \gamma \rightarrow W \nu_e$, $e^- Z$, $e^- \gamma$ within the electroweak Standard Model. I review the essential features of the corresponding lowest-order cross-sections and present results for the complete $O(\alpha)$ virtual, soft-photonic and hard-photonic corrections. While at low energies the weak corrections are dominated by the leading universal corrections, at high energies large non-universal corrections show up which arise from vertex and box diagrams involving non-Abelian gauge couplings.

Monday 23 August

ISOLDE EXPERIMENTS COMMITTEE

Open session

Monday 23 August

at 14.00 hrs – Council Chamber

1. Introductory remarks by the Chairman.
2. Status report on separator and beamline.
3. Coordinator's report.
4. Proposal: Shape coexistence and shell-model intruder states in the lead region studied by alpha decay (Institut voor Kern- en Stralingsfysica, K.U. Leuven); ISC 93-17/P49; P. Van Duppen.

5. Proposal: Saturation of deformation and identical bands in very-neutron rich Sr Isotopes (Department of Physics, Jyväskylä-Kernchemie Mainz-Isolde Collaboration); ISC 93-23/P52; G. Lhersonneau.
6. Proposal: Single-particle states in ^{133}Sn (Strasbourg-Studsvik-Oslo-Göteborg-Mainz-Warsaw-Lyon-Bergen Collaboration); ISC 93-25/P53; P. Hoff.
7. Proposal: Mass measurement of very short half-lived nuclei (Aarhus-Bucharest-CERN-Giessen-Göteborg-Mainz-Montreal-Orsay Collaboration); ISC 93-27/P54; M. de Saint Simon.
8. Proposal: Towards the proton drip-line along the cadmium isotopic chain (Warsaw-CERN); ISC 93-28/P55; P. Van Duppen.

Closed session

Monday 23 August

after the Open session, 6th Floor, Main Building,
continuing on Tuesday 24 August
from 10.00 hrs if necessary

Tuesday 24 August

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium

A summary of the Marseille EPS Conference :

Part 1 : Results from hadronic machines

by Michel DELLA NEGRA / CERN-PPE

Wednesday 25 August

ISOLDE SEMINAR

at 16.00 hrs – TH Conference Room

Exotic nuclei and the puzzle of the isotopic anomalies in meteorites

by Wolfgang HILLEBRANDT / MPI für
Astrophysik, Garching