

TRAINING AND EDUCATION ENSEIGNEMENT

WEDNESDAY 1 - THURSDAY 2 NOVEMBER

ACADEMIC TRAINING

at 11.00 hrs - Auditorium

"Precision limit of the cross spectral density obtained by the fast Fourier transform of the cross-relation function. Application to signal recovery in noise"

Lectures 1 & 2

by A. Knob/EPF, Lausanne

Abstract : Considering a pair of noised data samples (e.g. in geophysics or physiology), the CSD permits estimation of the linear relationship between the 'noise-free' parts of the two samples, i.e., the gain and the phase response of the filter existing between them. A straightforward method of estimating the CSD of two data samples consists in the cross-correlation function estimator's Fourier-transform. The errors affecting the CSD are mainly due to the fact that the filter relating the two data samples is stationary during a finite time-interval (statistical errors) and to the quantisation of the inputs (quantization errors). The variance of these two types of errors are given for the module and the phase of the CSD. An interesting result shows that the variance of the statistical errors on the CSD is lower by estimating its phase than its module. Furthermore, the quantisation of the inputs may influence the estimated CSD phase. The structure of the CSD-meter realized is given and simulations confirm the theoretical results. Finally, applications of low-frequency-electromagnetical data and under-water-acoustics data are presented.

THURSDAY 2 NOVEMBER

ENSEIGNEMENT GENERAL

à 13h00 - Auditorium

"Science pour tous"

par R. Carreras/CERN

7, 9, 14 AND 16 NOVEMBER

ACADEMIC TRAINING

at 11.00 hours - Auditorium

"New quarks and their manifestations"

by F. Vannucci/LAPP, Annecy

For abstract, see next week's Bulletin and notices

INFORMATIONS GENERALES GENERAL INFORMATION

LA SOCIETE DE BANQUE SUISSE COMMUNIQUE :

Pour cause de remplacement, l'appareil BANCOMAT sera mis hors service le 30 octobre 1978. Le nouvel appareil fonctionnera à partir du 9 novembre 1978; dès lors, de nouvelles cartes seront délivrées. Les titulaires de cartes seront avisés personnellement.

COURRIER CERN

EDITION D'OCTOBRE 1978

L'article principal concerne la puissance de la chromodynamique quantique, qui permet au théoricien le démarrage des calculs vers les mécanismes internes du hadron. Les dernières nouvelles du CERN concernent les améliorations apportées aux deux points extrêmes de la filière énergétique : le linac (50 MeV) et le SPS (400 GeV).

Exemplaires disponibles aux :

- Secrétariats de Division,
- Section Publications,
- Bibliothèque Centrale et du SPS,

dès le MERCREDI 1er NOVEMBRE 1978

