

## Thursday 1 December

### CERN COLLOQUIUM

at 16.30 hrs – Auditorium

**Haleakala high energy gamma ray studies of  
Herc x-1 pulsar system**

by W.F. FRY / University of Wisconsin and  
Michigan

## Friday 2 December

### DD SEMINAR

at 10.00 hrs – DD Auditorium

bldg 31, 3-005

**Design architecture of mainframe computers**

by Robert DORAN / CERN-DD

## Vendredi 2 décembre\*

### SEMINAIRE EF

à 11.00 h – Salle de Conférence EF

bât. 13, 2-005

**CAO pour le design d'ASICs utilisés dans le  
traitement des signaux**

par Patrice SENN / CNET France

*\* Veuillez noter le jour inhabituel!*

## Monday 5 December

### NOBEL CELEBRATION

at 15.30 hrs – Auditorium

**Welcome**

Talks by Melvin SCHWARTZ

Jack STEINBERGER

Leon LEDERMAN

*Refreshments will be served after the meeting in the  
Salle des Pas perdus.*

## TRAINING AND EDUCATION ENSEIGNEMENT

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### ENSEIGNEMENT GENERAL

Tél. 2844 - 5811

#### Judi 24 novembre

de 13.00 h à 13.30 h – *Salle du Conseil\**

**Science pour tous**

par R. CARRERAS

*\* Veuillez noter le changement de lieu!*

### ACADEMIC TRAINING

Tel. 2844-2460

#### 21, 22, 23 & 24 November

11.00 to 12.00 hrs – *Council Chamber\**

**Elementary introduction to supersymmetry**

by S. FERRARA / CERN-TH

*\* Please note change of place!*

#### 28, 29 & 30 November

#### 1 & 2 December

11.00 to 12.00 hrs – Auditorium

**Theory of RF waveguides and cavities**

by G. DOME / CERN-SPS

*After reviewing very briefly the basic principles of an RF system for particle acceleration, these lectures deal more specifically with waveguides and cavities. Starting from Maxwell's equations, a general theory is developed in detail for all waveguide and cavity modes. Periodically loaded waveguides are given as an example of accelerating structure. The parameters which characterize the interaction of resonant cavities with a particle beam are introduced, for both longitudinal and transverse motions. Reflection and transmission coefficients are derived for a cavity with input loop, output loop and beam. Finally, a proof is given of the validity of equivalent circuits for representing the behaviour of a cavity in the vicinity of a resonance, in the presence of both a beam and an RF generator.*