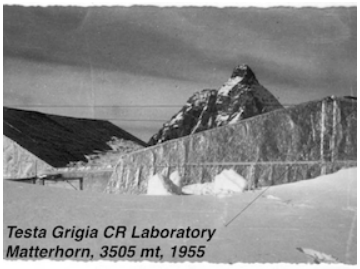

Contribution ID: **122** Type: **oral**

The electronics of the HEPD of the CSES experiment

Wednesday, 7 September 2016 12:00 (15 minutes)

The China Seismo Electromagnetic Satellite (CSES) aims to contribute to the monitoring of earthquakes from space. This space mission, lead by a Chinese-Italian collaboration, will study phenomena of electromagnetic nature and their correlation with the geophysical activity. The satellite will be launched in 2016 and will host several instruments onboard: two magnetometers, an electrical field detector, a plasma analyzer, a Langmiur probe and the High Energy Particle Detector (HEPD). The HEPD, built by the Italian collaboration, will study the temporal stability of the inner Van Allen radiation belts, investigating precipitation of trapped particles induced by magnetospheric, ionosferic and tropospheric electromagnetic emissions, as well as by seismo-electromagnetic disturbances. It consists of two layers of plastic scintillators for trigger and a calorimeter. The direction of the incident particle is provided by two planes of double-side silicon microstrip detectors. HEPD is capable of separating electrons and protons and identify nuclei up to Iron. The HEPD will study the low energy component of cosmic rays too. The HEPD comprises the following subsystems: detector, electronics, power supply and mechanics. The electronics can be divided in three blocks: silicon detector, scintillator detectors (trigger, energy and veto detectors) and global control and data managing. In this paper a description of the electronics of the HEPD and its main characteristics will be presented.

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Session Classification: Parallel