

## Old and new perspectives for the readout system of the MuRay muon telescope

*jeudi 19 avril 2012 15:40 (20 minutes)*

Muon telescopes, which detect atmospheric muons produced from cosmic ray showers, are providing an invaluable tool to volcanologists the world over by imaging the cone structure of the volcanoes. An instrument of this type has been assembled in Italy by the MuRay collaboration.

The MuRay telescope uses scintillator rods to detect and track atmospheric muons. One of the novelties with respect to other instruments developed for this purpose consists in the use Silicon Photomultipliers (SiPM) to convert the scintillator light output in electrical signals.

In this paper a detailed description will be given of the electronics designed and built for this detector based on the SPIROC chip, also new developments for the future using the new EASIROC chip will be presented.

**Auteur principal:** D'ALESSANDRO, Raffaello (Università di Firenze - INFN Firenze)

**Orateur:** D'ALESSANDRO, Raffaello (Università di Firenze - INFN Firenze)

**Classification de Session:** Technical developments for muon and neutrino imaging

**Classification de thématique:** Technical developments for muon and neutrino imaging