

# **The readout system for the Silicon photomultipliers of the MuRay muon telescope**

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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 is currently being 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 scope, with emphasis given on general design criteria driven by needs such as low power consumption, reliability, and ease of operation.