

Scintillator Detectors readout with SiPMs for space experiment

This talk addresses the development of advanced particle detectors based on plastic scintillators read-out with Silicon Photomultipliers (SiPMs). These detectors are designed to enhance the rejection of charged cosmic ray background in gamma-ray observation experiments and improve the identification of primary cosmic ray nuclei. The integration of SiPMs offers high photon detection efficiency, fast timing, and compactness, making them ideal for space-based applications. We will discuss the optimization of scintillator materials, SiPM configurations, and signal processing techniques to achieve superior performance in particle detection and identification.

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Session Classification: Photo and Particle Identification detectors

Track Classification: Photo and Particle Identification detectors