

Research and development on a Scintillating Fiber Tracker with SiPM array readout for Application in Space

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Scintillating fibers can be complementary to silicon micro-strips detectors for particle trackers in Space or offer an interesting alternative. Less fragile, more flexible, with no need of wire bonds, they can be used for the development of high-resolution charged-particle tracking detectors. Prototypes consisted in a ribbon of 40 cm long, 250 μm diameter fibers, with Hamamatsu MPPC arrays and readout by VATA ASICs have been tested. Proton beam test results, status of the space qualification process, as well as the preliminary tests with the new IDEAS SIPHRA chip will be presented.

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