

Abstract Submitted
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Use of Silicon Photomultiplier in LBL Cosmic Tay Detector LEO

OSORNIO, Hartnell Community College — During a summer internship program at Hartnell Community College our team successfully constructed two complementary cosmic ray experiments. The first employed NIM electronic modules the second constructed as per specifications of a circuit board designed by the Berkeley Lab Cosmic Ray Telescope Project (<http://cosmic.lbl.gov/>). During the following summer at Lawrence Berkeley National Laboratory, we worked on optimizing the performance of a group of Berkeley Lab Detector and developed tools to measure its performance. The next phase was exploring whether Silicon Photomultiplier (SiPM) can be used to replace the phototube of the Berkeley Detector. Data will be presented from both summers including the dependence of the cosmic ray flux on the separation and polar angle of scintillator paddles, as well as the results from our SiPM tests. Finally, I will include prospects for curriculum development using the cosmic ray experiments.

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