

Abstract Submitted
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Comparative Analysis of Different Light Detectors for the Cherenkov Effect¹ ZACHARY WEDEL, REXAVALMAR NIDUAZA, Hartnell College — Recently, the multi-pixel photon counters (MPPC) has found much application in various avenues of research in astro-particle physics and particle physics. In an effort to evaluate the MPPC detector, we constructed a modular experimental setup to determine its implementation as a possible detector for weak Cherenkov light. As a prototype Cherenkov detector, we made use of a 16-inch tall acrylic cylinder filled with distilled water as the light producing medium. For initial testing, we performed extensive experiments to evaluate our detector utilizing a 3-inch photomultiplier tube (PMT) and a 1-inch PMT coupled to wavelength shifting fibers both employing cosmic rays. In this talk, we would present results from our experimental findings comparing the various detectors in coincidence with the MPPC.

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