

Abstract Submitted
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Detecting EHE Cosmic Rays Using Cherenkov Light DOUGLAS BERGMAN, University of Utah — Cherenkov light has been used to detect gamma rays in the TeV energy range using an imaging technique and cosmic rays in the PeV energy range using a non-imaging technique. We would like to extend the use of the non-imaging technique up to nearly 1 EeV. At these energies the technique can be used in conjunction with fluorescence detection of cosmic rays, allowing for hybrid reconstruction of shower geometries and cross calibration of energy scales. We envision using an array of Cherenkov detectors as part of the Telescope Array (TA) Low Energy extension (TALE), extending the energy range of the detector down to the Knee of the cosmic ray energy spectrum.

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