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Stereoscopic Measurement of the Flux of Ultra High Energy Cosmic Rays by the High Resolution Fly's Eye Observatory WILLIAM HANLON, University of Utah, Department of Physics, High Energy Astrophysics Institute, HIRES COLLABORATION — The High Resolution Fly's Eye (HiRes) experiment has measured the flux of ultrahigh energy cosmic rays using the stereoscopic air fluorescence technique. The HiRes experiment consists of two detectors that observe cosmic ray air showers via the fluorescence light they emit. HiRes data can be analyzed in monocular mode, where each detector is treated separately, or in stereoscopic mode where they are considered together. Using the monocular mode, the HiRes collaboration measured the cosmic ray spectrum and made the first observation of the Greisen-Zatsepin-Kuz'min cutoff. The cosmic ray spectrum measured by the stereoscopic technique is presented here. Good agreement is found with the monocular spectrum in all respects.

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