

Abstract Submitted
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Absolute and Multiwavelength calibration of the Pierre Auger Observatory fluorescence detectors¹ BEN GOOKIN, JEFFREY BRACK, ALEXEI DOROFEEV, JOHN HARTON, YEVGENIY PETROV, ROBERT COPE, Colorado State University — The methods and results of the calibration of the Pierre Auger Observatory fluorescence detectors will be presented. Two methods are shown, an absolute calibration at a single UV wavelength and a relative calibration at several UV wavelengths. Both techniques use a uniform 2.5m diameter light source and are an end-to-end measurement of all the detector components. This technique calibrates the combined effect of each component in a single measurement. Recent improvements in technique and equipment have increased calibration reliability and improved uncertainties. We discuss these improvements here, including digital control and monitoring of LED pulses, a technique using the $1/r^2$ attenuation of light in the calibration of this low intensity light source, and the use of a monochromator to pick out single wavelengths in a broad UV range to perform the multiwavelength calibration.

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