

Abstract Submitted
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**USING CALIBRATION INFORMATION TO CHARACTER-
IZE DETECTOR AGING AT THE PIERRE AUGER OBSERVATORY**

ALAN COLEMAN, Pennsylvania State Univ, THE PIERRE AUGER COLLABORATION COLLABORATION — The Pierre Auger Observatory is an ultra high energy cosmic ray detector in Mendoza, Argentina which has been taking data since 2004. It is comprised of both fluorescence detectors and ground-based water cherenkov detectors (WCDS). As the WCDS age, the properties of the measured signals change as a function of time, due to effects such as changes in liner reflectivity and water absorption. a number of simulations to anticipate WCD performance with time indicates that the detector calibration information can be used to quantify this effect. A new method of WCD calibration has been devised for the Pierre Auger Observatory in order to characterize the detectors' aging.

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