

PIERRE AUGER ATMOSPHERIC-MONITORING LIDAR SYSTEM

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Measurements of the cosmic-ray air-shower fluorescence at extreme energies require precise knowledge of atmospheric conditions. The absolute calibration of the cosmic-ray energy depends on the fluorescence absorption between its origin and point of its detection. A dedicated LIDAR prototype was constructed for on-line monitoring of the atmospheric parameters at the Pierre Auger Observatory in Argentina. The laser-backscattering method is used to parametrize attenuation length over the detection volume.