

## 12 years of aerosol profile measurements at the Pierre Auger Observatory with CLF and XLF

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Aerosol attenuation profiles of the UV light have been measured at the Pierre Auger Observatory since the very beginning, dating back to 2004. The Central Laser Facility is operational since 2004, and its twin, the eXtreme Laser Facility, is operational since late 2010.

Two techniques are applied to produce the hourly aerosol attenuation profiles that are continuously used in the data analysis of the Fluorescence Detector of the Observatory to take into account the rapidly varying aerosol load in the atmosphere during the data taking. Neglecting the presence of aerosols leads to underestimation of the primary energy on average by 8%, with variations of single events reaching 40%.

In this contribution, 12 years of aerosol attenuation profiles measured using the data from the two laser facilities are presented, as well as the improvements in the analysis techniques.

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