

ELVES at the Pierre Auger Observatory

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Since 2013, the Pierre Auger Observatory, located in Malargue (Argentina), has implemented a dedicated trigger for the study of transient luminous emissions from the base of the ionosphere. These phenomena, called ELVES, are due to the de-excitation of the nitrogen molecules after the passage of the electromagnetic pulses produced by strong lightning activity. A significant fraction of the ELVES events are double or even multiple, and their interpretation is quite controversial. This report will review the reconstruction and parametrization of such events using the last five years of data taken by the Observatory.

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