Further studies on the angular distribution of light emission in ELVES detected at the Pierre Auger Observatory

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The Pierre Auger Observatory, located in Malargüe (Argentina), is the largest facility (3000 kmq ) for the study of Ultra High Energy Cosmic Rays (E>0.3 EeV). Since 2013, the four sites of the Fluorescence Detector (FD) record ELVES candidate events with a dedicated trigger. The length of recorded traces has been increased from 100 μs (2013), to 300 μs (2014-16), to 900 μs (2017-present), in order to fully understand the angular distribution of the light emission and shed light on the time distribution of the multiple ELVES candidates, that constitute about 1/3 of the recorded events. A review of the events recently recorded, in conjunction with the RELAMPAGO campaign in Argentina, will be given.