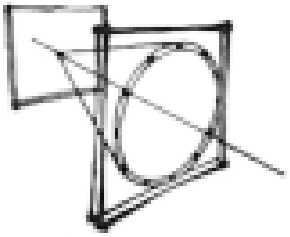

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LAGO: the Latin American Giant Observatory

Monday 5 September 2016 17:25 (15 minutes)

The Latin American Giant Observatory (LAGO) is an extended cosmic ray observatory composed by a network of water-Cherenkov detectors (WCD) spanning over different sites located at significantly different altitudes (from sea level up to more than 5000\,m a.s.l.) and latitudes across Latin America, covering a huge range of geomagnetic rigidity cut-offs and atmospheric absorption/reaction levels. The LAGO WCD is simple and robust, and incorporated several integrated devices to allow time synchronization, autonomous operation, on board data analysis, and even remote control and automated data transfer.

This detection network is designed to measure the temporal evolution of the radiation flux coming from outer space at ground level with extreme detail. LAGO is mainly oriented to perform basic research in three branches: high energy phenomena, space weather and atmospheric radiation at ground level. It is an observatory designed, built and operated by the LAGO Collaboration, a non-centralized collaborative union of more than 30 institutions from ten countries.

In this work we will describe the scientific and academic primary goals of our project, by showing its current results, present status and future perspectives. We will also include a brief description of the main characteristic that gives a unique perspective of scientific research in Latin America.

Registered

Yes

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