

RPC monitoring and results from the ARGO-YBJ experiment

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The ARGO-YBJ air-shower array is composed of 1836 Resistive Plate Chambers operated instreamer mode, with a total sensitive area of about 6400 m². The experiment, with its complete layout, has been running almost uninterruptedly since October 2007. The main working features of the detector, namely the operating current of each gas volume, atmospheric pressure, temperature and relative humidity, monitored by the Detector Control System, provide crucial information about the correct operation and long-term stability of the detector. The correlation between the average RPC absorption current and the monitored environmental parameters was studied in detail. The stable detector operation is allowing to obtain crucial results both in gamma-ray astronomy and cosmic-ray astrophysics. The features of the detector operation and the main physics results from ARGO-YBJ are presented.

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