

Data acquisition system of the NEVOD-EAS array

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The features of organization, operation principle and characteristics of the data acquisition system of a new cluster type shower array NEVOD-EAS which is being created in MEPHI (Moscow, Russia) are discussed. The main structural element of the setup is a cluster of scintillation detector stations (DS). Each cluster includes 4 DS consisting of 4 scintillation counters of the EAS electron-photon component particles, as well as of local post (LP) of primary data processing. LP performs preliminary processing of experimental information (digitizing of analog signals from the counters, selection of events according to specified triggering conditions), ensures cluster operation in exposition and monitoring modes, controls and maintains operating temperature, provides DS power supply, as well as transmits data to the central DAQ post (CP). Central post of the NEVOD-EAS array provides reception, storage, express analysis of experimental data and synchronous operation of all clusters at the unified clock frequency corrected according to timestamps from the GPS/GLONASS antenna.

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