Abstract

Since December 1996 the HEGRA collaboration is operating a system of 4 Imaging Atmospheric Cherenkov Telescopes (IACTs) on the Canary Island of La Palma. The IACT system is dedicated to the investigation of cosmic TeV γ-rays. In order to make full usage of the unique advantages of a stereoscopic system of telescopes, new readout electronics and data acquisition software was developed.

Since the comissioning of the telescope system the DAQ demonstrated its reliability and efficiency by recording observational data of several astrophysical objects, leading to the highly significant detection of 3 γ-ray sources in the TeV energy range.

The HEGRA telescope system is an operating example of the next generation's detector type for TeV γ-ray astronomy currently discussed (e.g. HESS and VERITAS). In this sense the DAQ of the HEGRA system serves as a prototype for future systems of telescopes which will build upon the gained experience and can reuse much of the developed software.