Contribution ID: **1224** Type: **Poster**

The upgraded Data Acquisition System of the H.E.S.S. telescope array

Friday 16 July 2021 19:18 (12 minutes)

The High Energy Stereoscopic System (H.E.S.S.) is an array of five Imaging Atmospheric Cherenkov Telescopes located in the Khomas Highland of Namibia. H.E.S.S. observes gamma rays above tens of GeV by detecting the Cherenkov light that is produced when Very High Energy gamma rays interact with the Earth's atmosphere. The H.E.S.S. Data Acquisition System (DAQ) coordinates the nightly telescope operations, ensuring that the various components communicate properly and behave as intended. It also provides the interface between the telescopes and the people on shift who guide the operations. The DAQ comprises both the hardware and software, and since the beginning of H.E.S.S., both elements have been continuously adapted to improve the data-taking capabilities of the array and push the limits of what H.E.S.S. is capable of. Most recently, this includes the upgrade of the entire computing cluster hosting the DAQ software, and the accommodation of a new camera on the large 28m H.E.S.S. telescope. We discuss the performance of the upgraded DAQ and the lessons learned from these activities.

Keywords

DAQ; data acquisition system; hardware; cluster; computing

Collaboration

H.E.S.S.

other Collaboration

Subcategory

Experimental Methods & Instrumentation

Primary authors: ZHU, Sylvia Jiechen (Z_HESS (High Energy Steroscopic System)); HOLCH, Tim (DESY); Dr MURACH, Thomas; OHM, Stefan (Z_HESS (High Energy Steroscopic System)); FUESSLING, Matthias (DESY); DE NAUROIS, Mathieu (Laboratoire Leprince-Ringuet, CNRS/IN2P3, Ecole polytechnique, Institut Polytechnique de Paris, Palaiseau, France); KRACK, Fabian (DESY); Dr MOSSHAMMER, Klemens; LINDEMANN, Rico (DESY DV)

Presenter: ZHU, Sylvia Jiechen (Z_HESS (High Energy Steroscopic System))

Session Classification: Discussion

Track Classification: Scientific Field: GAI | Gamma Ray Indirect