Contribution ID: **960**   Type: **Talk**

Performance of the new FlashCam-based camera in the 28m telescope of H.E.S.S.

Tuesday 20 July 2021 13:12 (12 minutes)

In October 2019 the central 28m telescope of the H.E.S.S. experiment has been upgraded with a new camera. The camera is based on the FlashCam design which has been developed in view of a possible future implementation in the medium-sized telescopes of the Cherenkov Telescope Array (CTA), with emphasis on cost and performance optimization and on reliability. The fully digital design of the trigger and readout system makes it possible to operate the camera at high event rates and to precisely adjust and understand the trigger system. The novel design of the front-end circuit achieves a dynamic range of over 3,000 photoelectrons with only one electronics readout circuit per pixel. Here we report on the performance of the camera during more than one year of operation in the field, including operational stability and optimization of calibration algorithms.

Keywords

H.E.S.S.; FlashCam; Performance

Collaboration

H.E.S.S.

other Collaboration

Subcategory

Experimental Methods & Instrumentation

Primary author: BI, Baiyang (IAAT)

Co-authors: SANTANGELO, Andrea (IAAT); BAUER, Christian (MPIK); FÖHR, Christian (MPIK); TENZER, Christoph (IAAT); LEUSCHNER, Fabian (University of Tuebingen / IAAT); WERNER, Felix (MPIK, Germany); GARRECHT, Frank (MPIK); PÜHLHOFER, Gerd (IAAT); HERMANN, German (MPI f. Kernphysik); GIAVITTO, Gianluca (DESY); SALZMANN, Heiko (Institut fur Astronomie und Astrophysik, Universität Tübingen); JUNG, Ira (ECAP); CATALANO, Jacqueline (ECAP); HINTON, Jim (MPIK); PFEIFER, Marc (ECAP); BARCELO, Miquel (MPIK); REIMER, Olaf (Universität Innsbruck, Institute for Astro- and Particle Physics); KALEKIN, Oleg (ECAP); KANKANYAN, Ruben (MPIK); DIEBOLD, Sebastian (Institute for Astronomy and Astrophysics University of Tübingen); SAILER, Simon (MPIK); STEINMASSL, Simon (MPIK); FUNK, Stefan (ECAP); SCHMIDT, Stefan (MPIK); KIHM, Thomas (MPIK); SCHANZ, Thomas (IAAT)

Presenter: BI, Baiyang (IAAT)

Session Classification: Discussion

Track Classification: Scientific Field: GAI | Gamma Ray Indirect