

Implementation of a hybrid system for the detection of high energy gamma rays with the compact IACTs HAWC's Eye and the HAWC observatory for high energy gamma rays.

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Content

The development of detection techniques in high-energy astrophysics is advancing rapidly, but each observational methodology has inherent advantages and disadvantages. For this reason, the idea of establishing a hybrid system opens the doors to more precise and complete detection techniques. By combining observations made with a pair of compact IACTs called HAWC's Eye in combination with the detections of an extended surface array such as the HAWC high energy gamma ray observatory, an attempt will be made to improve the range of detected energies as well as improving the resolution of observed events. In December 2019, an observation campaign was carried out, to analyze and compare the data against the simulations, in this way the instrument was characterized in order to implement it in the HAWC observatory and have a hybrid detection system.

Summary

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