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First results from HAWC on GRBs

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We will present the first results of HAWC in searching for VHE gamma-ray emission from GRBs reported by Fermi, Swift and other satellite. The HAWC gamma-ray observatory is operating in central Mexico at an altitude of 4,100 m a.s.l. With an instantaneous field of view of approximately 2 sr and over 95% duty cycle (up time fraction), HAWC is an ideal detector to perform ground based gamma-ray observations of gamma-ray bursts (GRBs). Though optimized for TeV observations, HAWC has significant sensitivity to short transients of energies as small as 50 GeV. Beside initial results, we will also describe the sensitivity of HAWC to GRBs. We will show that HAWC is sensitive enough to detect several historical GRBs if their emission extends only barely beyond the highest energy observed by Fermi LAT. We describe the analysis methods used for fast online and offline HAWC follow up of GRBs reported by satellites.

Collaboration

HAWC

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