Monitoring the TeV sky on short timescales with HAWC

ISRAEL MARTINEZ-CASTELLANOS, Univ of Maryland-College Park, HAWC COLLABORATION — The High-Altitude Water Cherenkov is a large field of view (~2sr) observatory sensitive to very-high energy gamma rays (~0.5-100 TeV). It is located in central Mexico (~19°N) and has a high duty cycle (>95%). These characteristics allow it to continuously survey the northern sky, looking for flares, bursts and possibly other unknown transient phenomena. Presented here is an unbiased search on the order of hours and performed online, which allow us to provide alerts and useful information to other experiments. In particular, it can trigger follow-ups from small FOV instruments, enabling deep observations of sources during their high state activity in the TeV range, which are valuable measurements than can constrain acceleration mechanisms.

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