

Abstract Submitted
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Creating New Triggers for Detecting Gamma-ray Flares from Flat Spectrum Radio Quasars JAMIL BATSHOUN, California State University, East Bay — Gamma-ray flares from flat spectrum radio quasars are a challenge to detect due to their rapid nature. A current method utilized to initiate observations of these extreme sources involves an indiscriminate trigger consisting of the observation of three photons of more than 50 GeV in a 24-hour period by the Fermi Large Area Telescope (LAT). We aim to improve on the ability to trigger observations by creating source-specific triggers. Each source is evaluated using three separate but related triggers. The first trigger is a specific energy threshold based on a histogram of the integrated photon energy per day. The second trigger involves spotting three sequential days where the integrated photon energy per day increased every 24 hours for a 72-hour window. The third trigger is a ratio of the integrated photon energy for a particular day above a specific energy threshold over the integrated photon energy for that same day below that threshold. These unique triggers will be displayed on a website to enable rapid follow up of these unique events by the community.

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