

A “Snapshot” Survey of the Gamma Ray Sky at GeV Energies

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The giant outbursts of GeV emission observed from some blazars pose a significant challenge to our understanding of blazar emission mechanisms. Unfortunately, the giant outbursts of GeV emission from blazars are not always predictable from monitoring observations in other energy bands. We discuss a new strategy to search the sky for intense outbursts of GeV emission that we will implement during Cycle 9 of the CGRO observing program. The new strategy employs 1-day activation of the EGRET spark chamber to take a “snapshot” of the sky at the beginning of each Viewing Period for which the satellite Z-axis is pointing toward high galactic latitude. We show that tests on recent EGRET data indicate that a 1-day snapshot can unambiguously detect bursts out to nearly 15° from the CGRO pointing direction when the >100 MeV flux exceeds 10^{-6} $\text{cm}^{-2}\text{s}^{-1}$. If a major outburst is detected, a follow-up multiwavelength campaign will be conducted to follow the burst development.