

Temporal and spatial distributions of the unidentified EGRET sources in the Galaxy

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The large sample of unidentified EGRET sources in the 3rd catalogue presents sources of obvious Galactic origin because of their concentration along the Galactic plane. To question the origin of the 126 sources scattered at medium and high latitudes, we have investigated both their time variability and spatial distributions. To account for the instrumental biases, the method developed earlier to study large scale correlations with known populations (Grenier 1998) has been applied and the variability results obtained by Tompkins (1999) have been used. It appears that the spatial and temporal distributions are coupled, from which two populations of sources may be distinguished. One of rather persistent sources presents a significant correlation with the structure of the nearby Gould Belt. A new population of variable Galactic sources arises from this study. Its spatial distribution will be presented and discussed.