WAVELET ANALYSIS OF EGRET DATA

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A powerful analysis method, based on wavelet transforms (WT), was developed and applied to the search of point and extended sources in the EGRET data. The exposure and PSF of EGRET vary strongly over the field of view and the galactic gamma-ray background presents many point-like structures, making the source extraction in the wavelet space difficult. Several mathematical approaches have been studied to successfully estimate the significance level of the wavelets coefficients. The performances of the method will be presented as well as the strategy for the future GLAST mission involving an order of magnitude more sources.