

Characterization of the Local Universe via cross-correlations

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The aim of our work is to explore the Extra-galactic Unresolved Diffuse Emission of the Local Universe, cross-correlating Fermi LAT Pass8 data with the 2MPZ galaxy catalog. The main idea behind the work is to use magnitude measurement in B and K band as a tracer respectively of star formation and mass amount, and to isolate the presence of AGNs in the 2MPZ catalog with available AGNs catalogs. The determination of the cross-correlation of the gamma-rays data with the various galaxy subsets allows the decomposition of the different contributions to the Angular Power Spectrum, possibly leaving room for a Dark Matter component. We present the latest preliminary results of our analysis.

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