

Investigating the nature of the 4FGL soft Galactic unassociated sources

Friday 14 October 2022 09:45 (15 minutes)

The bulk of the $|b| < 10^\circ$ 4FGL unassociated sources exhibit very soft spectra (power-law index distribution peaking around 2.6), have a Galactic-latitude distribution extending out to 10 degrees, and present notable clustering. These peculiar features, unseen in any classes of associated sources, raise the question of their possible spurious character and of their nature if real. We will outline the properties of these soft sources (referred to as SGUs) and present preliminary results of simulations exploring the possibility that SGUs arise from mis-modelled diffuse emission. Inspecting the broad-band environment of the brightest SGUs is a complementary approach to shedding light on their nature.

Track

Diffuse

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Session Classification: Parallel 11