

## Can Fermi-LAT unassociated sources be mismodeled interstellar gas?

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The unassociated population represents about 30% of the sources in the latest 4FGL-DR4 release, with about one half lying at low ( $|b| < 10^\circ$ ) Galactic latitudes. Many of these low-latitude sources exhibit properties that set them apart from established classes of Galactic gamma-ray emitters, in particular very soft spectra. The latter feature earned them the denomination “soft Galactic unassociated sources” (SGUs).

This presentation discusses whether this population could be compatible with mismodeled interstellar gas. This is addressed by leaving more freedom in the interstellar emission model when fitting the data, by simulating the effect of additional interstellar gas, by simulating slightly extended ( $0.1^\circ$  or so) interstellar clumps, and by looking for similar extension in the actual unassociated sources.

**Primary authors:** Dr LOTT, Benoit (LP2i Bordeaux); BALLEET, Jean (AIM, CEA Saclay)

**Presenter:** BALLEET, Jean (AIM, CEA Saclay)

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