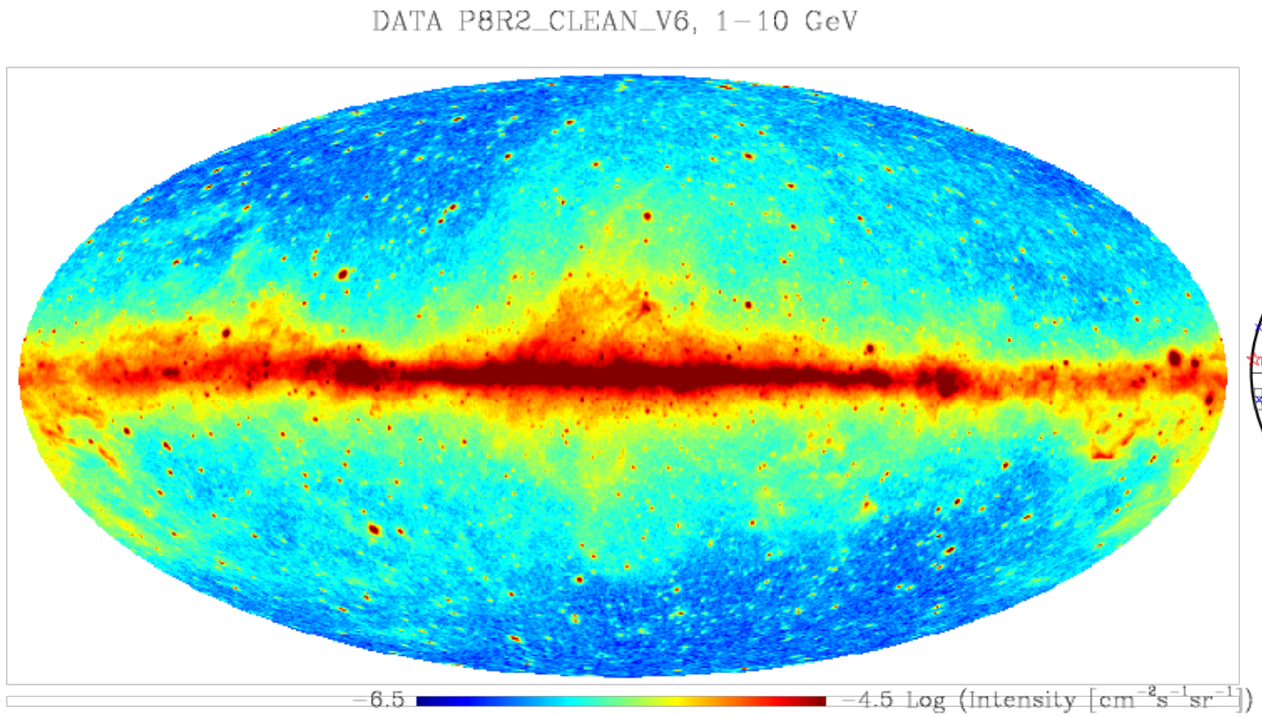
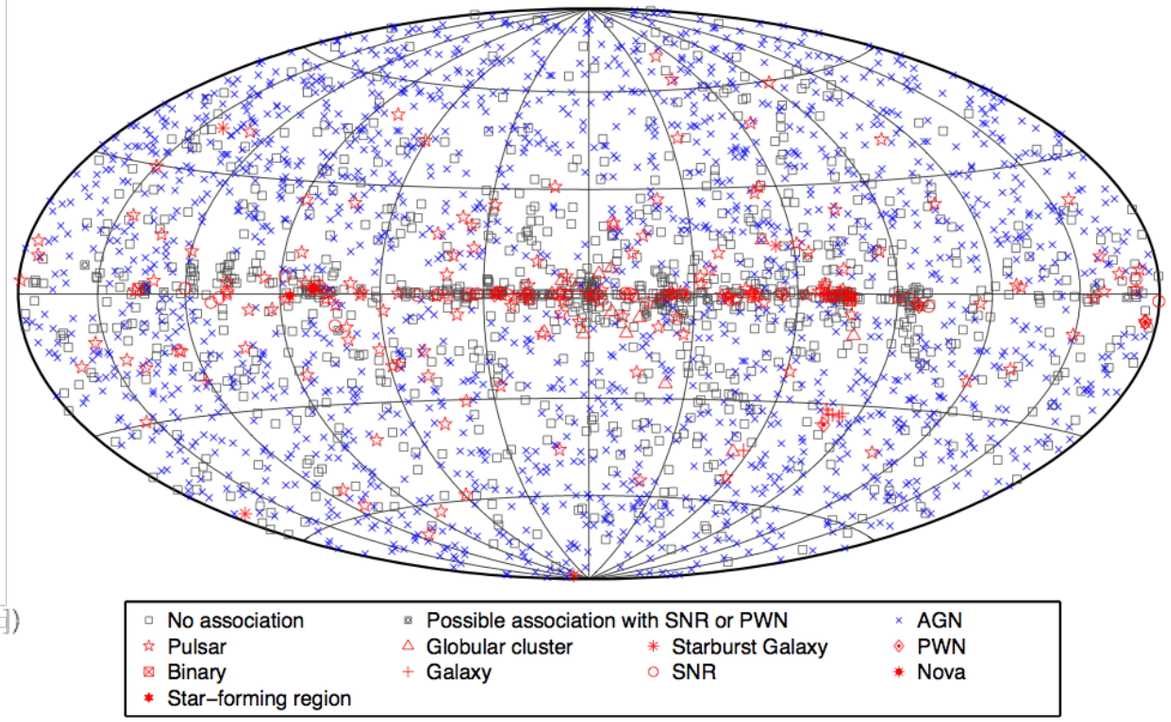
Challenge on the Inclusive analysis of Fermi-LAT point sources

Goal: to **localise** and **classify** Fermi LAT point sources, infer **source properties**

- The second step done in unsupervised way leaving space to detect new source classes
- comparison with traditional methods, i.e. catalogs relatively ‘straightforward’





Details: https://docs.google.com/document/d/19HsshuPr4rEbjat2AnUk7p_eLv1yXbA9GR5Bj5Z4s5A/edit#heading=h.1485omrgkxip

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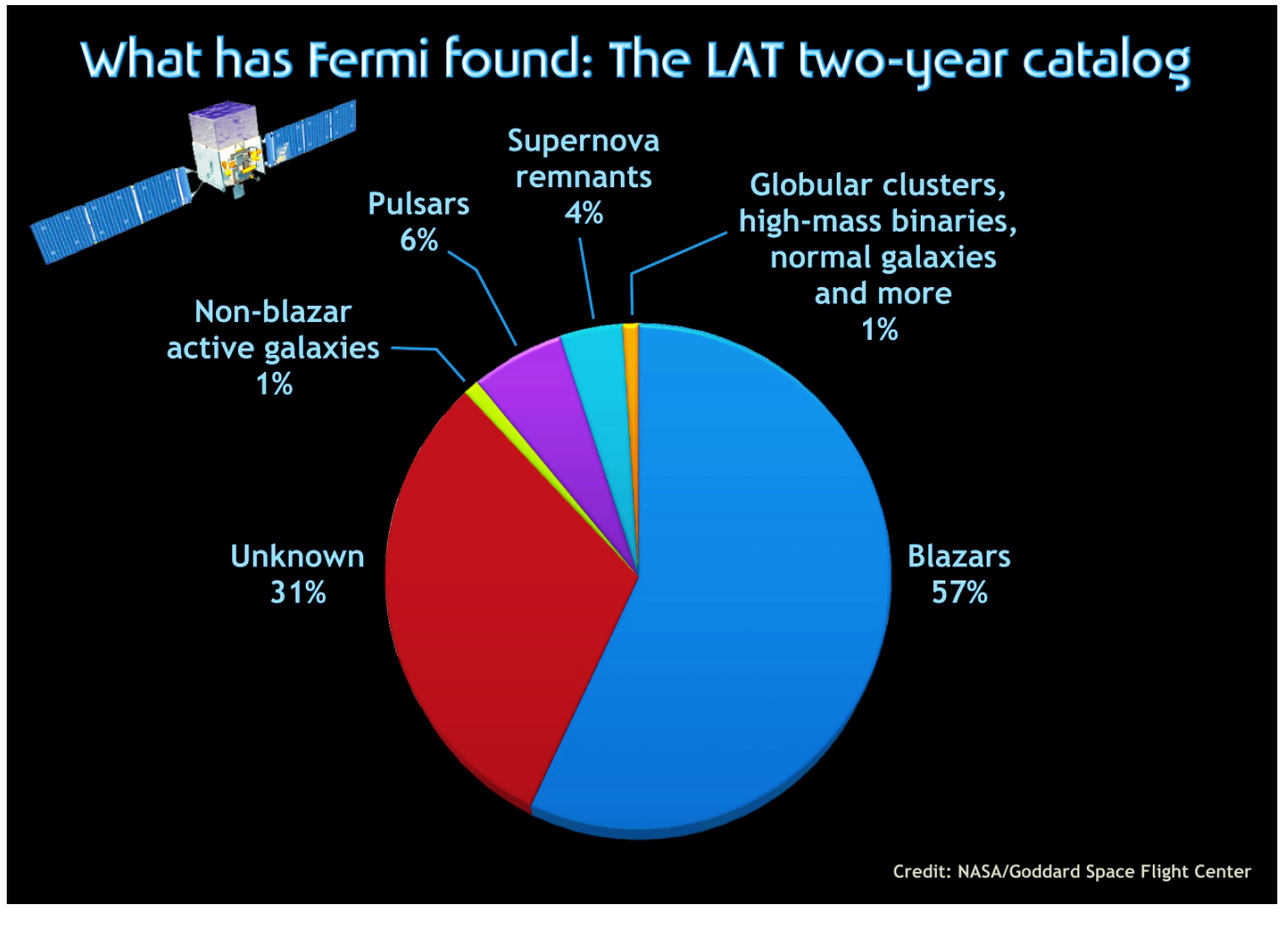

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Status: we started with the **classification first**

- Generated data that have ‘AGN-like’ and “PSR-like’ sources, whole sky, in 4 energy bins
- Shared data + simple notebook with the challenge participants (via slack channel)
- Had constructive discussions & first results

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Next steps:

— add **diffuse model** and focus on **localisation**

— probabilistic programming (started by Christoph, revamp?), to study source properties

- **Meeting today (+these days?) in Lunquist to agree on this plan and discuss details**

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