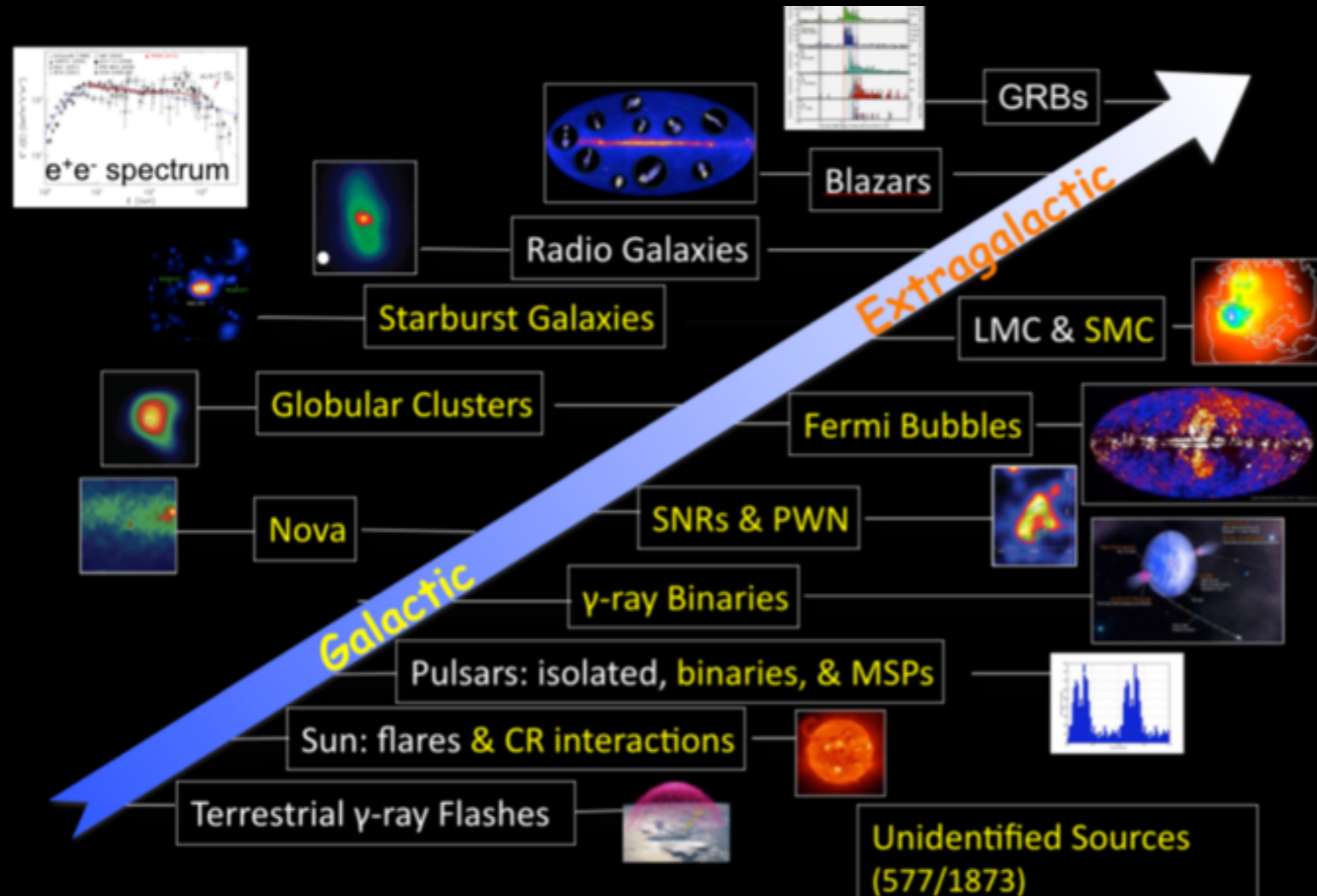




**WP-4 Fermi-LAT data
analysis**
**Scientific board meeting
update**

Sara Cutini (INFN- Perugia)
Melissa Pesce-Rollins (INFN -Pisa)
Seth Digel (SLAC)

Fermi-LAT science topics



WP 4:

- Fermi-LAT source catalog
- WIMP dark matter searches
- Cosmic-ray electron science
- Electromagnetic follow-up of gravitational waves

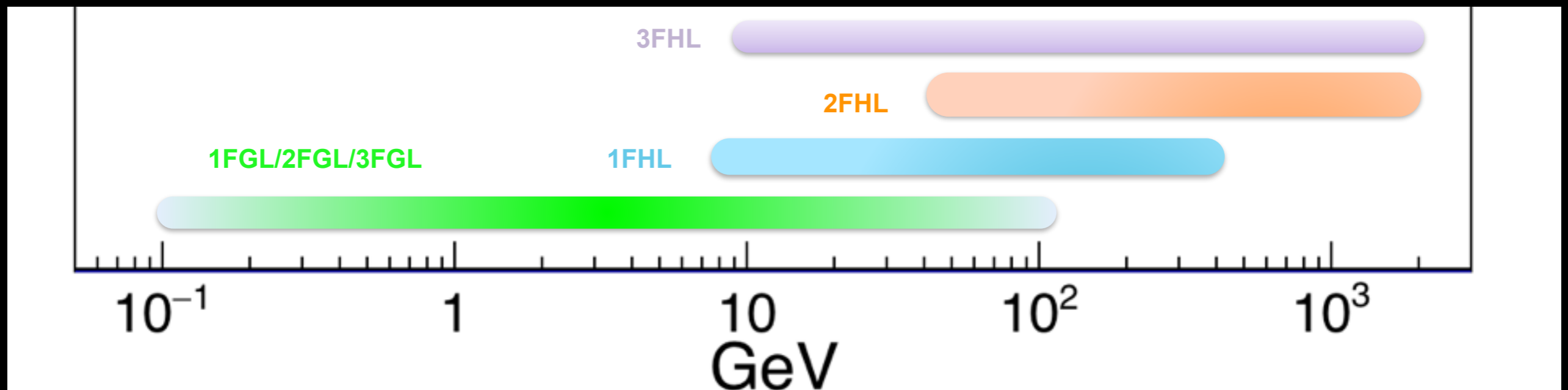
Fermi LAT 8 years source list

- Release of preliminary version of the Fermi-LAT 8 years source list (FL8Y)
- Available at FSSC website, here: <https://fermi.gsfc.nasa.gov/ssc/data/access/lat/fl8y/>
- The FL8Y source list includes **5524** sources above **4-sigma significance** with source location regions and spectral properties

Fermi LAT 8 years source list

- Based on the first eight years of science data and the **100 MeV–1 TeV energy range**

4FGL



Fermi LAT 8 years source list

- Association and identification procedure still is going: **Bayesian Method** was applied and **LR method** is still missing
- ~3000 sources associated to AGN (blazar, NLSy1, Radio Galaxy)
- ~220 source associated to pulsars (PSR, MSP)
- ~160 sources associated to galactic one (SNR, PWN, SPP)
- ~38% of sources are unidentified —> it will be reduced after the 2nd round of associations