



Fermi has had a great year!

- | | # citations |
|---|-------------|
| • “Measurement of the Cosmic Ray e^+e^- Spectrum from 20 GeV to 1 TeV with the Fermi Large Area Telescope” (05/2009) <ul style="list-style-type: none">– Cited across a broad range - cosmic-ray, astronomy, particle physics (D0, BABAR) | 163 |
| • “The Large Area Telescope on the Fermi Gamma-Ray Space Telescope Mission” (09/2008) | 95 |
| • “Fermi/Large Area Telescope Bright Gamma-Ray Source List” (07/2009) | 78 |
| • “Fermi Observations of High-Energy Gamma-Ray Emission from GRB 080916C” (03/2009) | 66 |
| • “Bright Active Galactic Nuclei Source List from the First Three Months of the Fermi Large Area Telescope All-Sky Survey” (07/2009) | 57 |
| • “The Fermi Gamma-Ray Space Telescope Discovers the Pulsar in the Young Galactic Supernova Remnant CTA 1” (11/2008) | 35 |

Fermi LAT: e^+e^- spectrum

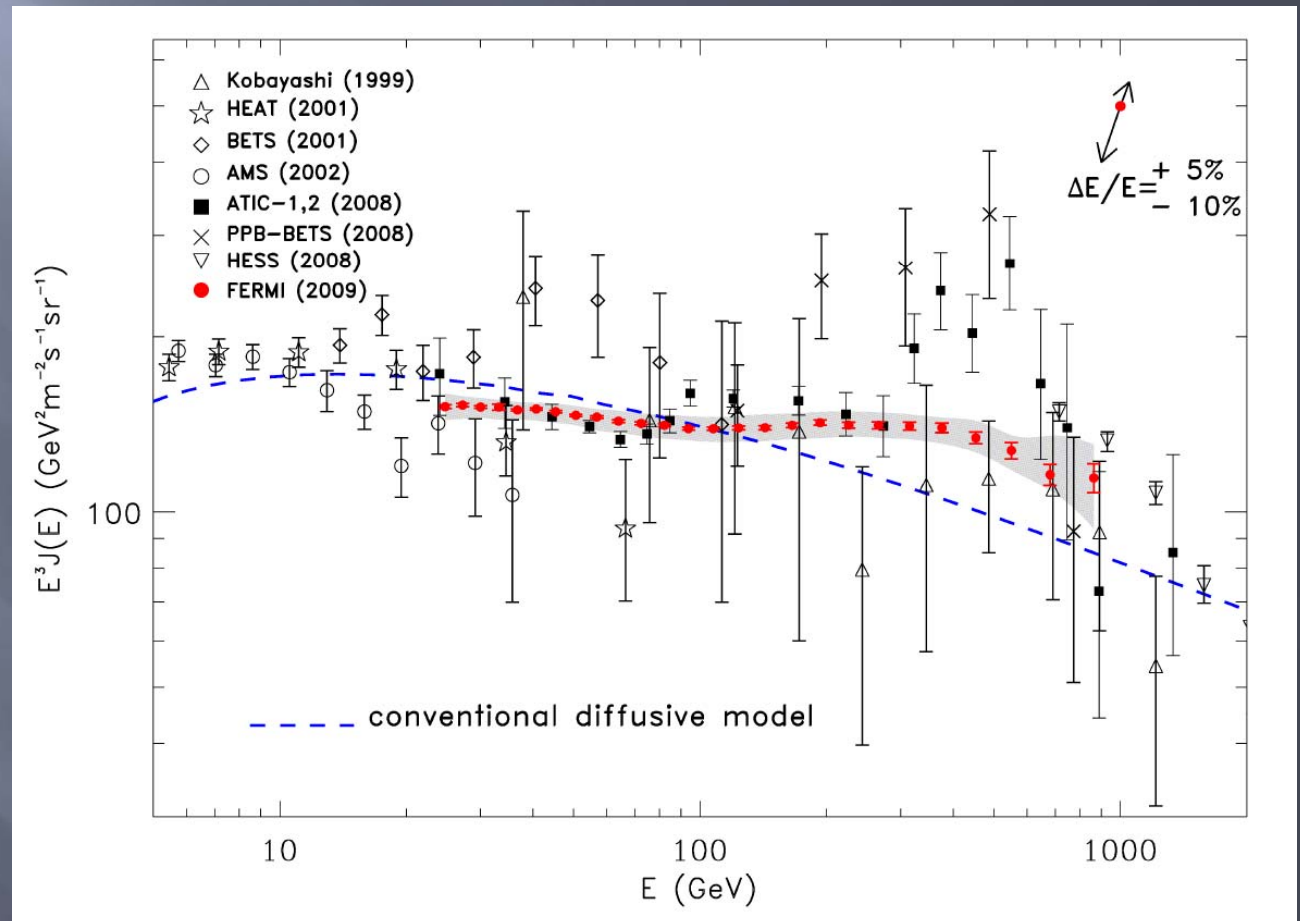
- no prominent spectral features between 20 GeV and 1 TeV;
significantly harder spectrum than inferred from previous measurements

- events for e^+e^- analysis required to fail ACD vetoes for selecting γ events; resulting γ contamination $< 1\%$

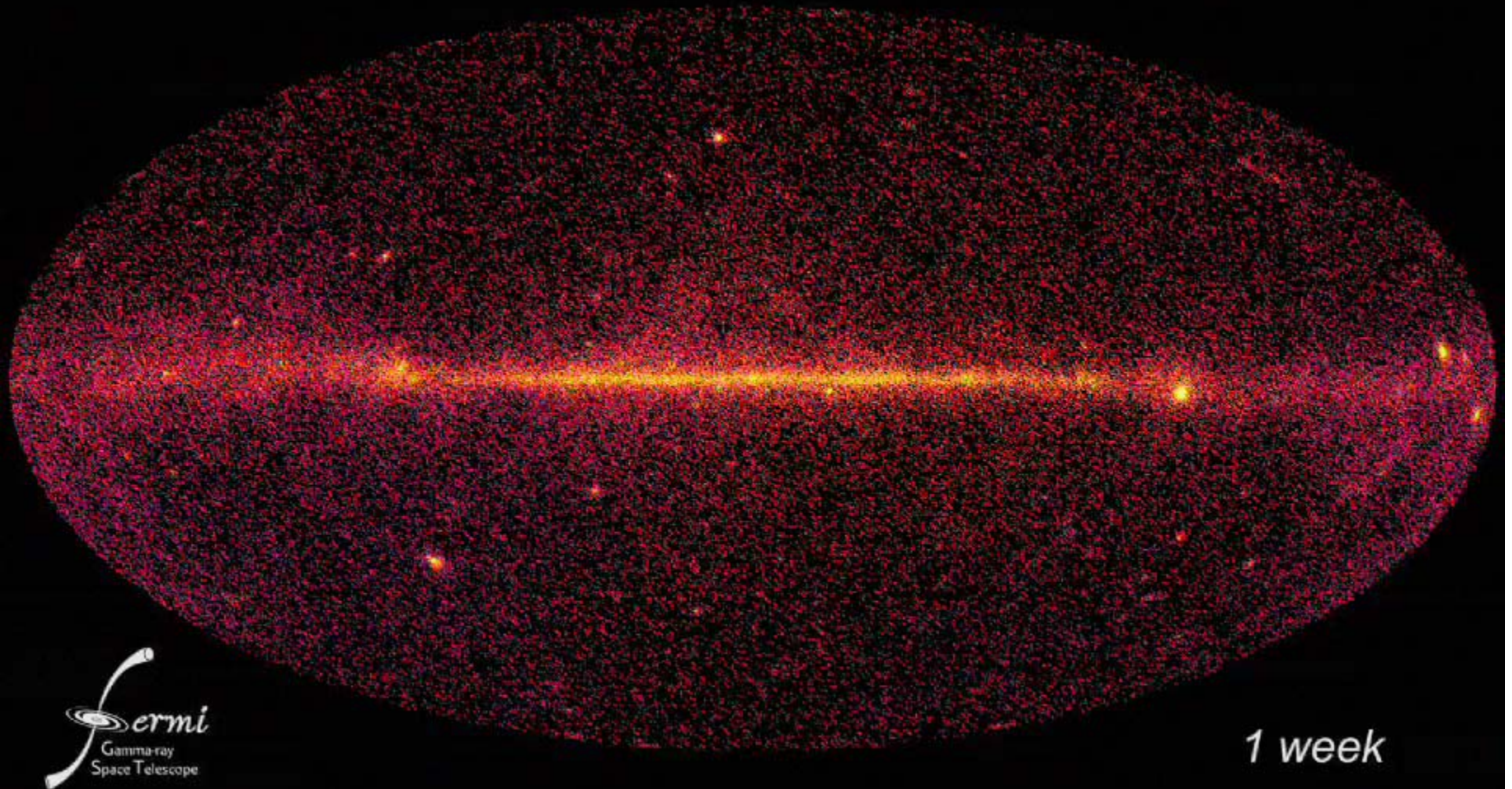
- further cuts distinguish EM and hadron events; rejection $1:10^3$ up to 200 GeV; $\sim 1:10^4$ at 1 TeV

- energy reconstruction aided by shower imaging capability of calorimeter

- more than 4×10^6 e^+e^- events in selected sample



LAT observes the sky on timescales from fractions of a second, to days, months ...



Fermi
Gamma-ray
Space Telescope



Science

14 August 2009 | \$10

Fermi
Detecting Gamma-Ray Pulsars

