

Erratum: the first fermilarge area telescope catalog of gamma-ray pulsars

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ERRATUM: “THE FIRST *FERMI* LARGE AREA TELESCOPE CATALOG OF
GAMMA-RAY PULSARS” (2010, *ApJS*, 187, 460)

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In the published paper, an error was made in accounting for the delay due to interstellar dispersion in the radio phasing of PSR J1124–5916. This changes the measured gamma-ray to radio lag (δ) to 0.11 ± 0.01 . An error was also made in the off-pulse phase range in Table 3 for that pulsar. This error did not affect the spectral results. Corrected versions of Table 3 (with the revised numbers in bold face), Figure 4, and Figure A20 are included here.

In addition, there was an error in the caption to Figure 9. The figure with corrected caption is included here, with the changed word in bold face.

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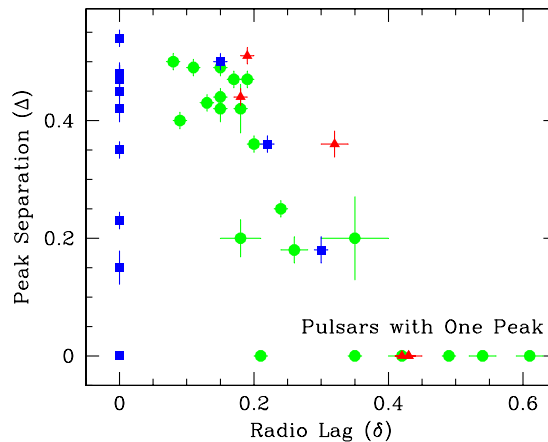


Figure 4. Phase difference Δ between the gamma-ray peaks vs. the phase lag δ between the main radio peak and the nearest gamma-ray peak. Pulsars without a radio detection are plotted with $\delta = 0$. With present light curves we cannot generally measure $\Delta < 0.15$; objects classified as single-peaked are plotted with $\Delta = 0$. Two such objects, both MSPs, are off the plot at $\delta > 0.8$. Blue squares: gamma-ray-selected pulsars. Red triangles: millisecond gamma-ray pulsars. Green circles: all other radio loud gamma-ray pulsars.

(A color version of this figure is available in the online journal.)

Table 3
Pulse Shape Parameters of LAT-detected Pulsars

PSR	Type ^a	Peak	Radio Lag	γ -Ray Peak Separation	Off-pulse Definition
		Multiplicity	δ	Δ	ϕ
J0007+7303	g	2	...	0.23 ± 0.01	0.29–0.87
J0030+0451	m	2	0.18 ± 0.01	0.44 ± 0.01	0.68–0.12
J0205+6449	r	2	0.08 ± 0.01	0.50 ± 0.01	0.64–0.02
J0218+4232	m	2	0.32 ± 0.02	0.36 ± 0.02	0.84–0.16
J0248+6021	r	1	0.35 ± 0.01	...	0.71–0.19
J0357+32	g	1	0.34–0.86
J0437–4715	m	1	0.43 ± 0.02	...	0.60–0.20
J0534+2200	r	2	0.09 ± 0.01	0.40 ± 0.01	0.62–0.98
J0613–0200	m	1	0.42 ± 0.01	...	0.56–0.16
J0631+1036	r	1	0.54 ± 0.02	...	0.80–0.20
J0633+0632	g	2	...	0.48 ± 0.01	0.09–0.45
J0633+1746	g	2	...	0.50 ± 0.01	0.24–0.54
J0659+1414	r	1	0.21 ± 0.01	...	0.40–1.00
J0742–2822	r	1	0.61 ± 0.02	...	0.84–0.44
J0751+1807	m	1	0.43 ± 0.02	...	0.63–0.99
J0835–4510	r	2	0.13 ± 0.01	0.43 ± 0.01	0.66–0.06
J1028–5819	r	2	0.19 ± 0.01	0.47 ± 0.01	0.76–0.12
J1048–5832	r	2	0.15 ± 0.01	0.42 ± 0.02	0.64–0.04
J1057–5226	r	2	0.35 ± 0.05	0.20 ± 0.07	0.72–0.20
J1124–5916	r	2	0.11 ± 0.01	0.49 ± 0.01	0.70–0.06
J1418–6058	g	2	...	0.47 ± 0.01	0.54–0.90
J1420–6048	r	2 ^b	0.26 ± 0.02	0.18 ± 0.02	0.60–0.10
J1459–60	g	2	...	0.15 ± 0.03	0.34–0.78
J1509–5850	r	2 ^b	0.18 ± 0.03	0.20 ± 0.03	0.52–1.00
J1614–2230	m	2	0.19 ± 0.01	0.51 ± 0.01	0.92–0.14
J1709–4429	r	2	0.24 ± 0.01	0.25 ± 0.01	0.66–0.14
J1718–3825	r	1	0.42 ± 0.02	...	0.68–0.20
J1732–31	g	2	...	0.42 ± 0.02	0.49–0.93
J1741–2054	g	2	0.30 ± 0.01	0.18 ± 0.02	0.67–0.19
J1744–1134	m	1	0.83 ± 0.02	...	0.08–0.44
J1747–2958	r	2	0.18 ± 0.01	0.42 ± 0.04	0.64–0.10
J1809–2332	g	2	...	0.35 ± 0.01	0.41–0.89
J1813–1246	g	2	...	0.47 ± 0.02	0.56–0.90
J1826–1256	g	2	...	0.47 ± 0.01	0.54–0.94
J1833–1034	r	2	0.15 ± 0.01	0.44 ± 0.01	0.68–0.10
J1836+5925	g	2	...	0.48 ± 0.01	...
J1907+06	g	2	...	0.40 ± 0.01	0.46–0.94
J1952+3252	r	2	0.15 ± 0.01	0.49 ± 0.01	0.68–0.08
J1958+2846	g	2	...	0.45 ± 0.01	0.55–0.95
J2021+3651	r	2	0.17 ± 0.01	0.47 ± 0.01	0.70–0.04
J2021+4026	g	2	...	0.48 ± 0.01	...
J2032+4127	g	2	0.15 ± 0.01	0.50 ± 0.01	0.60–0.92
J2043+2740	r	2	0.20 ± 0.01	0.36 ± 0.01	0.64–0.08
J2124–3358	m	1	0.86 ± 0.02	...	0.92–0.58
J2229+6114	r	1	0.49 ± 0.01	...	0.64–0.14
J2238+59	g	2	...	0.50 ± 0.01	0.60–0.92

Notes. Light curve shape parameters evaluated from the full energy range light curve (see Section 2.1.3). These include the peak multiplicity (third column), the lag δ of the first gamma peak from the main radio peak for the radio-detected pulsars (fourth column), and the phase difference Δ between the main gamma-ray peaks (fifth column). Column 6 lists the off-pulse phase range used in the spectral analysis.

^a Types are r: radio-selected, g: gamma-ray-selected, and m: millisecond.

^b For some pulse profiles the current data set does not allow clear discrimination between a single, broad pulse and two unresolved pulses. See the discussion in Weltevrede et al. (2010) regarding PSRs J1420–6048 and J1509–5850.

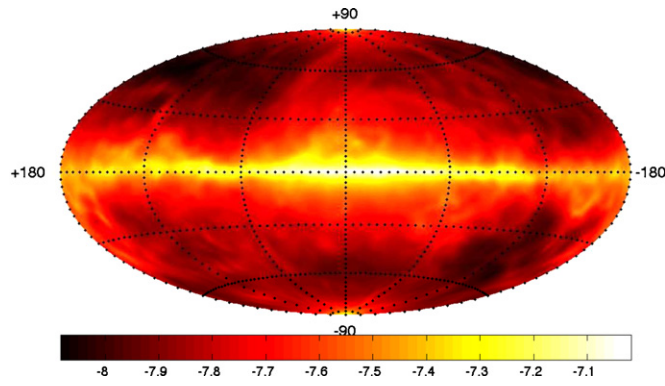


Figure 9. Aitoff projection sky map of the 5σ sensitivity in units of logarithmic **photon flux** ($\log(L_\gamma)$ photons $\text{cm}^{-2} \text{s}^{-1}$) for 6 months of *Fermi*-LAT sky-survey data. The sensitivity analysis uses the model of the diffuse gamma-ray background described in the text (Section 4) and pulsar spectra with differential photon indices of $\Gamma = 1.4$ with an exponential cutoff energy of $E_{\text{cutoff}} = 2.2 \text{ GeV}$. (A color version of this figure is available in the online journal.)

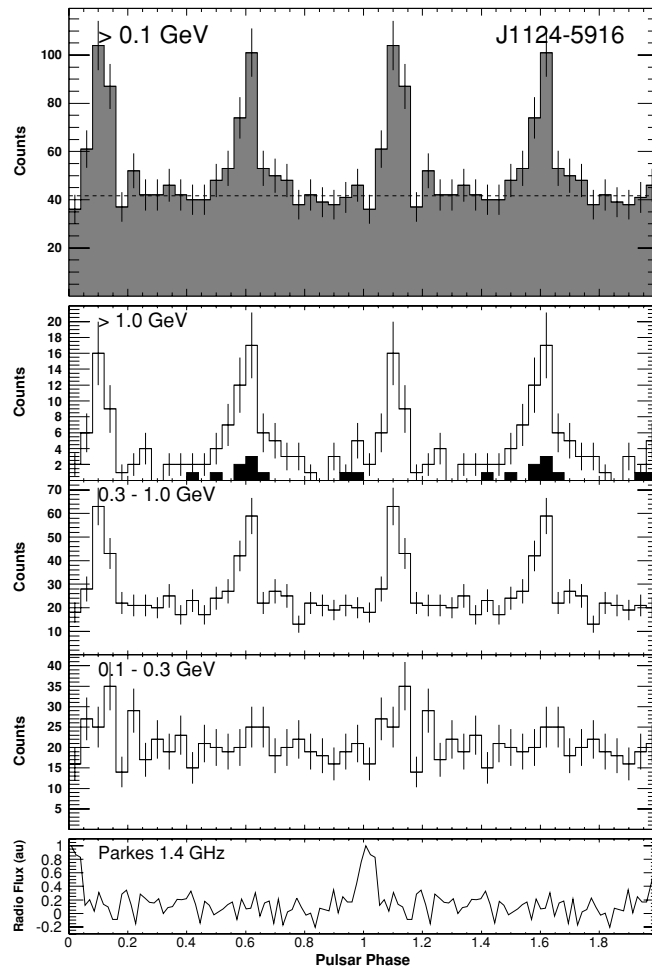


Figure A20. Light curves for PSR J1124–5916 ($P = 135 \text{ ms}$).

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Weltevrede, P., et al. 2010, *ApJ*, 708, 1426