

FA-GSW Report DOY 229 (August 17, 2009)

Flare-Advocate/Gamma-ray-Sky-Watcher report: DOY 229 (August 17, 2009)

On Duty Flare Advocates:

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Highlights

Extragalactic Science

- 3c279 is absent
- 3c454.3 at $1.07 \pm 0.28 \times 10^6$
- Several sources active but below 10^6
 - S4 0917+44 (TS=38) at 0.62 ± 0.23
 - 3C 273 (TS=21) at $0.68 \pm 0.32 \times 10^6$
 - PKS 151008 (TS=31) at $0.83 \pm 0.31 \times 10^6$
 - 4C +38.41 (TS=45) at $0.65 \pm 0.21 \times 10^6$
 - PKS 205247 (TS=47) at $0.82 \pm 0.25 \times 10^6$
 - PKS 2155304 (TS=57) at $0.41 \pm 0.15 \times 10^6$

Galactic Science

- The usual culprits:
 - Crab, Geminga, Vela
 - LSI +61 303 (TS=61) at $1.71 \pm 0.40 \times 10^6$
 - PSR J17094429 (TS=18) at $1.83 \pm 0.67 \times 10^6$
 - LAT PSR J1836+5925 (TS=139) at $0.88 \pm 0.21 \times 10^6$
 - LAT PSR J2021+4026 (TS=53) at $1.65 \pm 0.45 \times 10^6$
 - PSR J2229+6114 (TS=34) at $0.68 \pm 0.26 \times 10^6$

UFOs or not identified

- Within 1° of ASPJ174500m291500: G359.950.04, 1E 1743.12843, EMS1178, EMS1173
- A 6hr run full of flares (#1675), all from unidentified locations:
 - Galactic ASPJ202138p413136, quite close to another unidentified flare ASPJ202051p340720 in #1674
 - Extragalactic ($b=26$) ASPJ182854p574730 (TS=22) at $1.15 \pm 0.51 \times 10^6$
10' from cluster of galaxies ZW 1826+5745 (ASDC Tools)

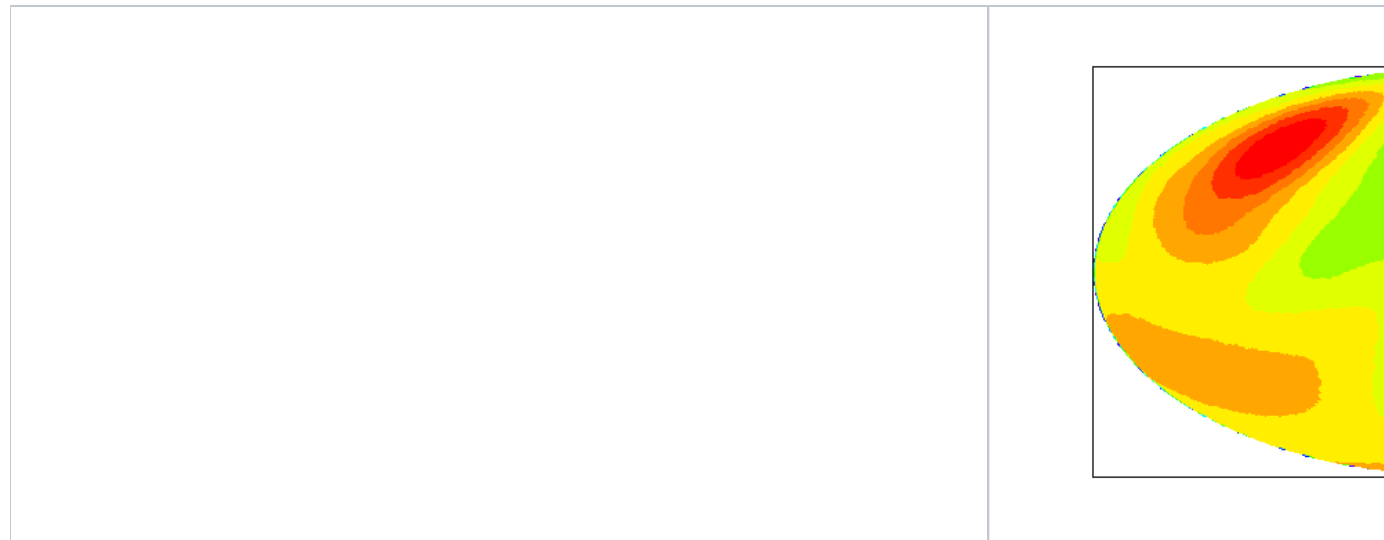


Technical notes

- Fluxes are given in units of $\text{ph} \times \text{cm}^2 \text{s}^{-1}$ in the $0.1 \div 300$ GeV energy band.
- Science Tools: v9r15p2
- Results are obtained with unbinned likelihood using iLat and FA-dedicated scripts.
- "diffuse" fits are downloaded via the new astroserver as suggested by Tony Johnson. An example for the daily run:
`~glst/astroserver/prod/astro --database AstroPass6p105 --eventClass "event_class > 2"`
`--minTimestamp 272160002 --maxTimestamp 272246402`
`--output-ft1 Filtered_evt_00419_diffuse.fits store`
- IRF used : P6_V3_DIFFUSE

Likelihood Analysis results:

Daily Run (n. **419**)

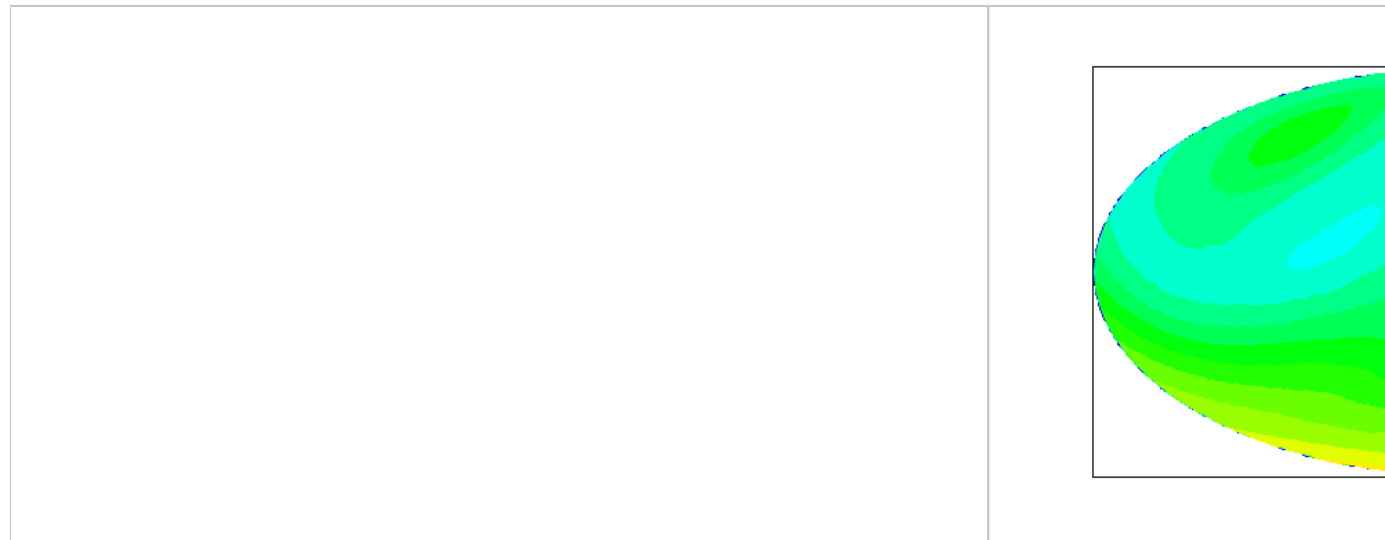


Extragalactic Sources	RA (J2000)	DEC (J2000)	L	B	TS	Npred	Flux*	Flux err*	index	index err	Delta	ID
ASPJ092033p443709	140.417	44.5008	175.965	44.9539	38	18	0.62	0.23	2.53	0.35	0°13.5'	BZQ J0920+4441 S4 0917+44 SDSS J09209+4439
3C273	187.439	2.1223	290.285	64.4604	21	13	0.68	0.32	2.66	0.45	0°10.8'	3C 273
1510m089	228.045	-8.7229	351.464	40.5276	31	19	0.83	0.31	2.43	0.32	0°24.6'	PKS 151008
1633p382	248.673	38.5864	61.6865	42.4768	45	21	0.65	0.21	2.19	0.25	0°27.5'	4C +38.41
ASPJ205731m471323	313.996	-47.0543	352.845	-40.3392	47	22	0.82	0.25	2.64	0.31	0°11.4'	PKS 205247
PKS2155m304	329.878	-30.2162	17.7706	-52.3834	57	17	0.41	0.15	1.96	0.23	0° 9.3'	PKS 2155304
3C454.3	343.692	15.9787	86.1969	-38.4324	62	32	1.07	0.28	2.53	0.25	0°15.3'	3C 454.3

Galactic Sources	RA (J2000)	DEC (J2000)	L	B	TS	Npred	Flux*	Flux err*	index	index err	Delta	ID
LSIp61303	40.0902	61.2035	135.667	1.05435	61	52	1.71	0.40	2.63	0.22	0° 1.7'	LSI +61 303
CrabPulsar	83.7941	21.8086	184.813	-5.76821	158	89	2.77	0.45	2.40	0.14	0°15.6'	Crab
Geminga	98.5269	17.7599	195.165	4.30453	890	218	5.44	0.50	1.96	0.06	0° 2.7'	Geminga
VelaPulsar	128.826	-45.1908	263.559	-2.80165	1212	326	11.61	0.87	2.00	0.05	0° 1.1'	Vela
ASPJ170700m431500	257.063	-43.643	343.619	-1.9729	18	40	1.83	0.67	2.60	0.33	0°53.2'	PSR J17094429
ASPJ183525p591857	279.065	59.2406	88.6769	24.9585	139	38	0.88	0.21	1.91	0.15	0°11.1'	LAT PSR J1836+5925
ASPJ202138p413136	305.398	40.5429	78.3148	2.12992	53	56	1.65	0.45	2.20	0.18	0° 5.9'	LAT PSR J2021+4026
ASPJ222751p615303	337.009	61.4905	106.672	3.23164	34	27	0.68	0.26	2.09	0.23	0°15.2'	PSR J2229+6114

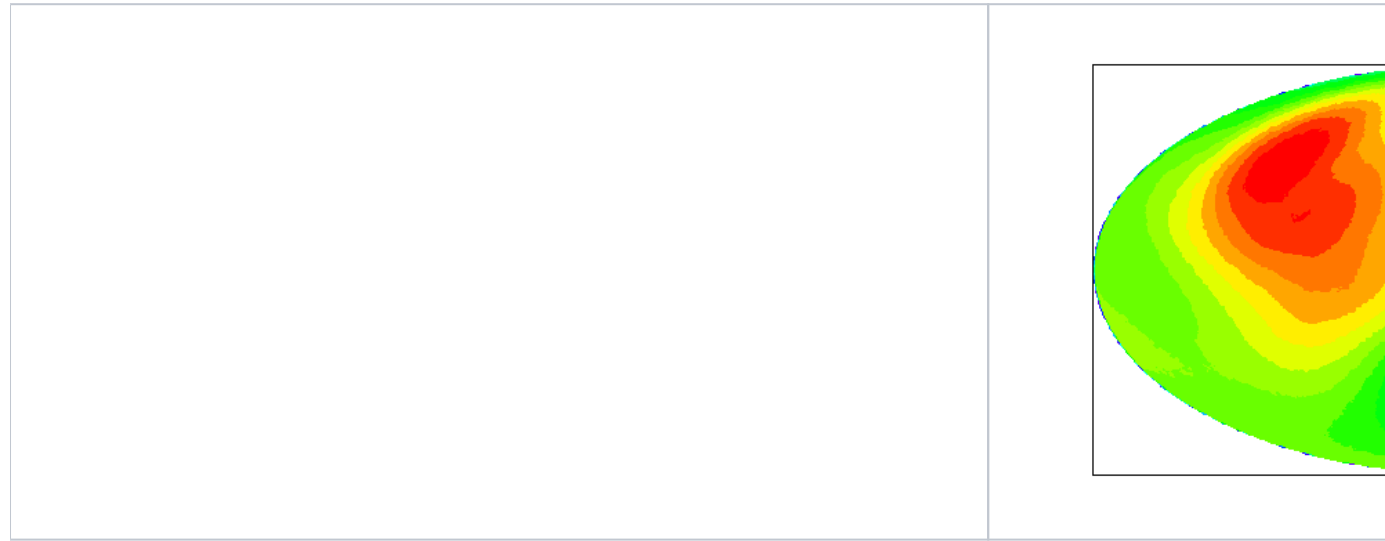
UFOs or ID not found	RA (J2000)	DEC (J2000)	L	B	TS	Npred	Flux*	Flux err*	index	index err	Delta	ID
ASPJ174500m291500	266.55	-28.9344	0.0676122	-0.107509	17	47	1.68	0.68	2.25	0.24	0° 8.3' 0°12.6' 0°45.5' 0°49.4'	G359.950.04 1E 1743.1 2843 EMS1178 EMS1173
ASPJ193345p651724	293.439	65.2901	96.9583	20.2384	0	0	0.02	0.16	2.66	4.45	—	??

Six hours run (n. 1673)



Galactic Sources	RA (J2000)	DEC (J2000)	L	B	TS	Npred	Flux*	Flux err*	index	index err	Delta	ID
ASPJ053028p211725	83.6104	21.5368	184.952	-6.05776	34	17	2.13	0.79	2.04	0.24	0°28.9'	Crab
Geminga	98.5368	17.7495	195.179	4.30818	196	49	6.00	1.17	2.03	0.14	0° 3.4'	Geminga
VelaPulsar	128.813	-45.2262	263.582	-2.83001	584	150	12.14	1.32	1.97	0.07	0° 3.3'	Vela
ASPJ183430m105230	278.633	-10.8386	21.371	-1.22166	7	12	2.38	1.85	2.42	0.52	0°21.6'	PSR J18331034
ASPJ183323p602605	278.761	59.6238	89.0578	25.1859	43	8	1.08	0.47	1.65	0.23	0°14.9'	LAT PSR J1836+5925

Six hours run (n. 1674)

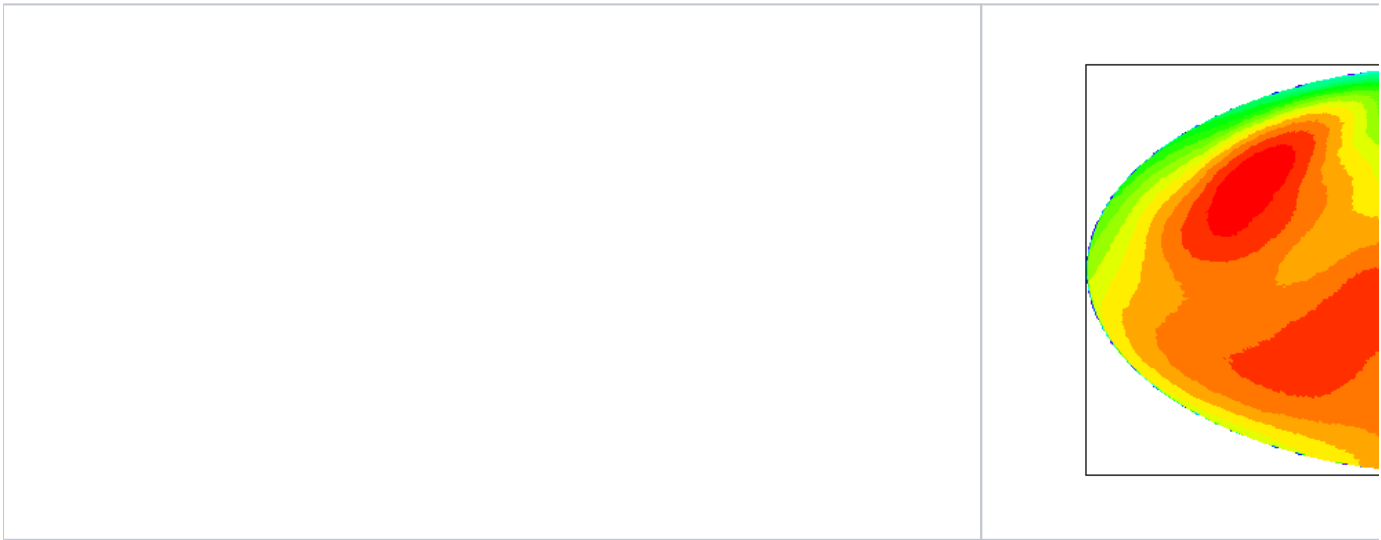


Extragalactic Sources	RA (J2000)	DEC (J2000)	L	B	TS	Npred	Flux*	Flux err*	index	index err	Delta	ID
3C454.3	344.115	15.8632	86.5489	-38.7526	26	8	1.50	0.70	2.26	0.39	0°39.7'	3C 454.3

Galactic Sources	RA (J2000)	DEC (J2000)	L	B	TS	Npred	Flux*	Flux err*	index	index err	Delta	ID
ASPJ024507p601601	42.2502	59.396	137.4	-0.132342	19	15	3.83	1.45	2.94	0.46	0°58.0'	PSR J0248+6021
ASPJ053216p230319	83.6568	22.7284	183.964	-5.38342	32	16	4.39	1.55	2.88	0.40	0°42.7'	Crab
Geminga	98.8967	17.7942	195.296	4.63368	118	32	5.51	1.29	2.04	0.17	0°23.8'	Geminga
VelaPulsar	128.901	-45.1729	263.577	-2.74831	235	66	11.40	1.88	2.05	0.12	0° 2.6'	Vela

UFOs or ID not found	RA (J2000)	DEC (J2000)	L	B	TS	Npred	Flux*	Flux err*	index	index err	Delta	ID
ASPJ202051p340720	305.717	34.203	73.2524	-1.69639	15	17	3.19	1.39	2.81	0.43	–	??

Six hours run (n. 1675)

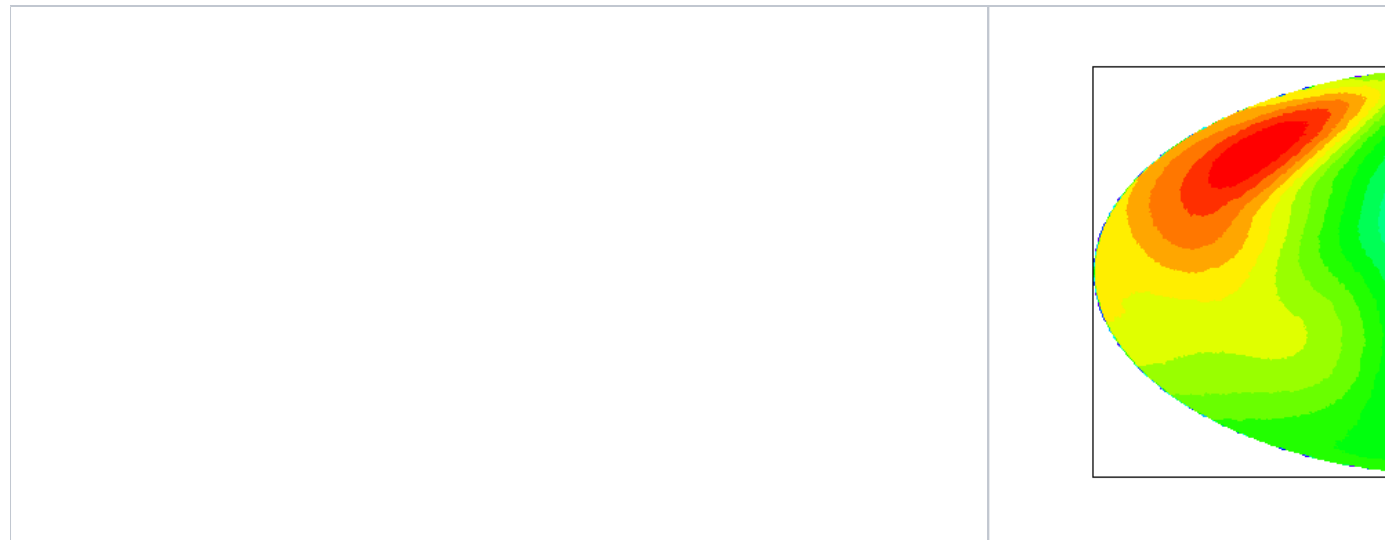


Extragalactic Sources	RA (J2000)	DEC (J2000)	L	B	TS	Npred	Flux*	Flux err*	index	index err	Delta	ID
PKS0716p714	110.273	71.2331	144.103	27.9489	60	11	0.92	0.40	1.80	0.26	0° 8.9'	S5 0716+71
3C454.3	343.683	16.1359	86.2982	-38.2965	30	14	1.50	0.60	2.39	0.34	0°10.9'	3C 454.3

Galactic Sources	RA (J2000)	DEC (J2000)	L	B	TS	Npred	Flux*	Flux err*	index	index err	Delta	ID
CrabPulsar	83.7053	21.8102	184.767	-5.83705	42	20	3.17	1.03	2.64	0.33	0°13.2'	Crab
Geminga	98.4011	17.6341	195.223	4.14048	158	41	5.01	1.04	1.94	0.14	0° 9.4'	Geminga
VelaPulsar	128.792	-45.1212	263.489	-2.7791	112	35	11.23	2.63	2.07	0.17	0° 3.8'	Vela

UFOs or ID not found	RA (J2000)	DEC (J2000)	L	B	TS	Npred	Flux*	Flux err*	index	index err	Delta	ID
ASPJ151146m072956	228.334	-7.9156	352.464	40.926	15	10	1.79	0.84	2.48	0.44	–	??
ASPJ182854p574730	277.226	57.7916	86.8986	25.6185	22	11	1.15	0.51	2.50	0.47	–	??
ASPJ202138p413136	306.548	41.1597	79.32	1.77095	13	19	1.99	0.90	2.34	0.35	–	??

Six hours run (n. 1676)



Galactic Sources	RA (J2000)	DEC (J2000)	L	B	TS	Npred	Flux*	Flux err*	index	index err	Delta	ID
CrabPulsar	83.7204	22.0122	184.603	-5.7172	52	21	2.04	0.71	2.13	0.24	0° 5.1'	Crab
Geminga	98.4977	17.751	195.161	4.27572	285	62	4.76	0.81	1.85	0.11	0° 1.5'	Geminga
VelaPulsar	128.764	-45.1713	263.518	-2.82472	365	86	9.82	1.41	1.92	0.10	0° 3.2'	Vela
ASPJ183525p591857	279.074	59.3423	88.7878	24.9742	52	9	0.78	0.34	1.77	0.26	0° 5.1'	LAT PSR J1836+5925

UFOs or ID not found	RA (J2000)	DEC (J2000)	L	B	TS	Npred	Flux*	Flux err*	index	index err	Delta	ID
ASPJ234900p594500	357.25	59.75	115.136	-2.17328	1	4	0.46	0.48	2.37	0.65	—	??

* $F(E>100\text{MeV}) \times 10^6 \text{ ph cm}^2 \text{ s}^{-1}$