

# FA-GSW Report DOY 231 (August 19, 2009)

Flare-Advocate/Gamma-ray-Sky-Watcher report: DOY 231 (August 19, 2009)

On Duty Flare Advocates:

FA: Denis Bastieri (bastieri@pd.infn.it)

**Highlights**

Extragalactic Science

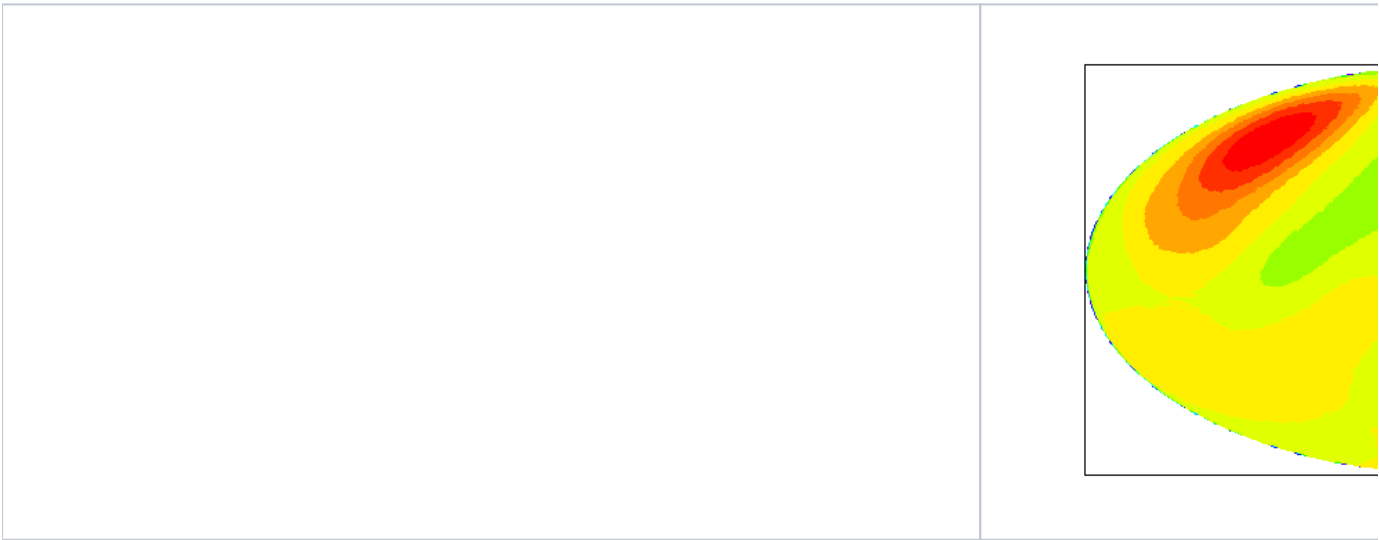
Galactic Science

**Technical notes**

- Fluxes are given in units of  $\text{ph} \times \text{cm}^2 \text{ s}^{-1}$  in the  $0.1 \div 300 \text{ GeV}$  energy band.
- Science Tools: v9r15p2
- Results are obtained with unbinned likelihood using iLat and FA-dedicated scripts, mainly following the *email* approach suggested by Andrea.
- IRF used : P6\_V3\_DIFFUSE

Likelihood Analysis results:

Daily Run (n. 421)



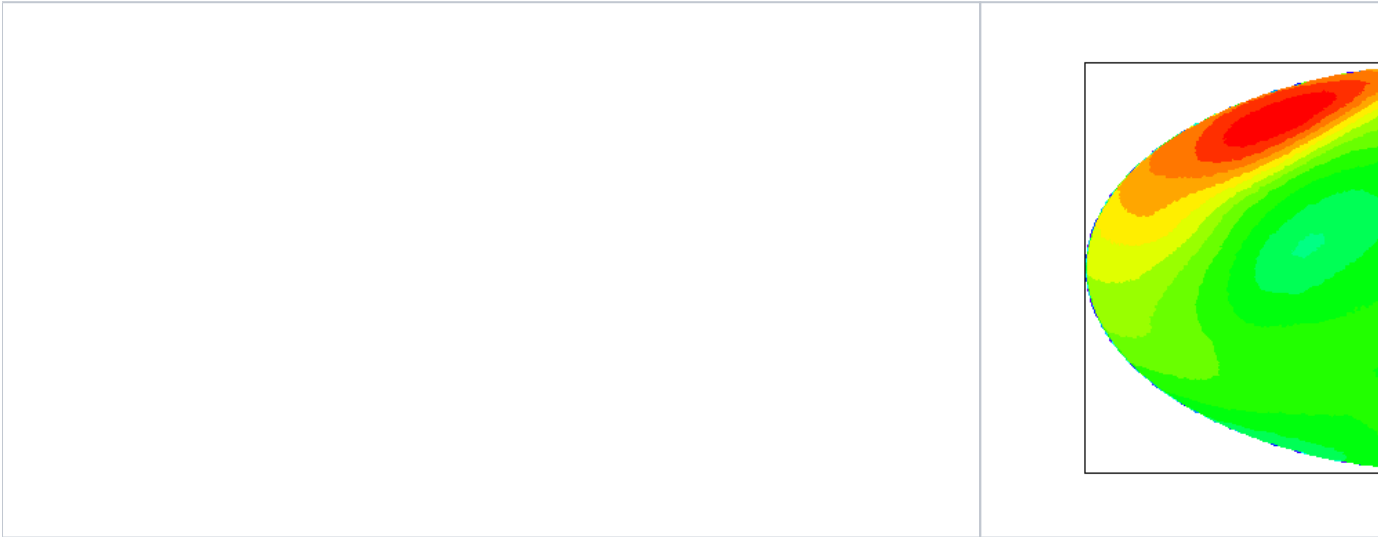
| Extragalactic Sources | RA (J2000) | DEC (J2000) | L       | B        | TS  | Npred | Flux* | Flux err* | index | index err | Delta   | ID                          |
|-----------------------|------------|-------------|---------|----------|-----|-------|-------|-----------|-------|-----------|---------|-----------------------------|
| 3C273                 | 187.206    | 2.0794      | 289.775 | 64.3719  | 190 | 60    | 3.18  | 0.54      | 2.67  | 0.18      | 0° 4.5' | 3C 273                      |
| 3C279                 | 194.04     | -5.6363     | 305.103 | 57.2155  | 31  | 11    | 0.42  | 0.19      | 2.00  | 0.29      | 0° 8.9' | 3C 279                      |
| 1633p382              | 248.681    | 38.2186     | 61.1895 | 42.4468  | 82  | 27    | 0.92  | 0.26      | 2.37  | 0.24      | 0° 5.8' | 4C +38.41                   |
| ASPJ180207m391906     | 271.058    | -39.6238    | 352.632 | -8.66158 | 53  | 27    | 0.86  | 0.27      | 2.10  | 0.22      | 0°19.9' | BZU J18023940               |
| ASPJ202300m074500     | 306.356    | -7.5768     | 36.8874 | -24.3214 | 49  | 22    | 0.65  | 0.24      | 2.17  | 0.25      | 0° 4.1' | BZQ J20250735<br>PKS 202207 |
| ASPJ205731m471323     | 314.182    | -47.2977    | 352.519 | -40.4568 | 34  | 20    | 0.66  | 0.22      | 2.41  | 0.30      | 0° 5.6' | PKS 205247                  |
| 3C454.3               | 343.407    | 16.1601     | 86.0349 | -38.1295 | 132 | 51    | 1.83  | 0.38      | 2.52  | 0.19      | 0° 5.1' | 3C 454.3                    |

| Galactic Sources | RA (J2000) | DEC (J2000) | L | B | TS | Npred | Flux* | Flux err* | index | index err | Delta | ID |
|------------------|------------|-------------|---|---|----|-------|-------|-----------|-------|-----------|-------|----|
|------------------|------------|-------------|---|---|----|-------|-------|-----------|-------|-----------|-------|----|

|                   |         |          |         |          |      |     |       |      |      |      |         |                    |
|-------------------|---------|----------|---------|----------|------|-----|-------|------|------|------|---------|--------------------|
| ASPJ000659p725318 | 2.0466  | 72.9141  | 119.72  | 10.3126  | 67   | 25  | 0.60  | 0.20 | 2.00 | 0.21 | 0°10.0' | LAT PSR J0007+7303 |
| CrabPulsar        | 83.5909 | 21.9635  | 184.58  | -5.8447  | 294  | 109 | 3.46  | 0.49 | 2.23 | 0.11 | 0° 3.9' | Crab               |
| Geminga           | 98.4597 | 17.7237  | 195.168 | 4.23106  | 787  | 183 | 5.01  | 0.50 | 1.90 | 0.07 | 0° 3.0' | Geminga            |
| VelaPulsar        | 128.851 | -45.1562 | 263.542 | -2.7666  | 1087 | 287 | 11.67 | 0.92 | 1.97 | 0.06 | 0° 1.2' | Vela               |
| ASPJ170900m444500 | 257.334 | -44.4799 | 343.063 | -2.62858 | 62   | 52  | 1.80  | 0.49 | 2.14 | 0.17 | 0° 4.4' | PSR J17094429      |
| ASPJ183323p602605 | 279.323 | 59.6619  | 89.1611 | 24.915   | 76   | 25  | 0.70  | 0.20 | 2.13 | 0.21 | 0°16.3' | LAT PSR J1836+5925 |
| ASPJ202214p402203 | 305.17  | 40.3415  | 78.0507 | 2.15794  | 52   | 67  | 2.71  | 0.62 | 2.66 | 0.22 | 0°11.7' | LAT PSR J2021+4026 |

| UFOs or ID not found | RA (J2000) | DEC (J2000) | L       | B       | TS | Npred | Flux* | Flux err* | index | index err | Delta   | ID      |
|----------------------|------------|-------------|---------|---------|----|-------|-------|-----------|-------|-----------|---------|---------|
| ASPJ235402p680040    | 358.51     | 68.0111     | 117.581 | 5.73771 | 10 | 19    | 0.68  | 0.34      | 2.74  | 0.49      | 0°47.5' | EMS0002 |

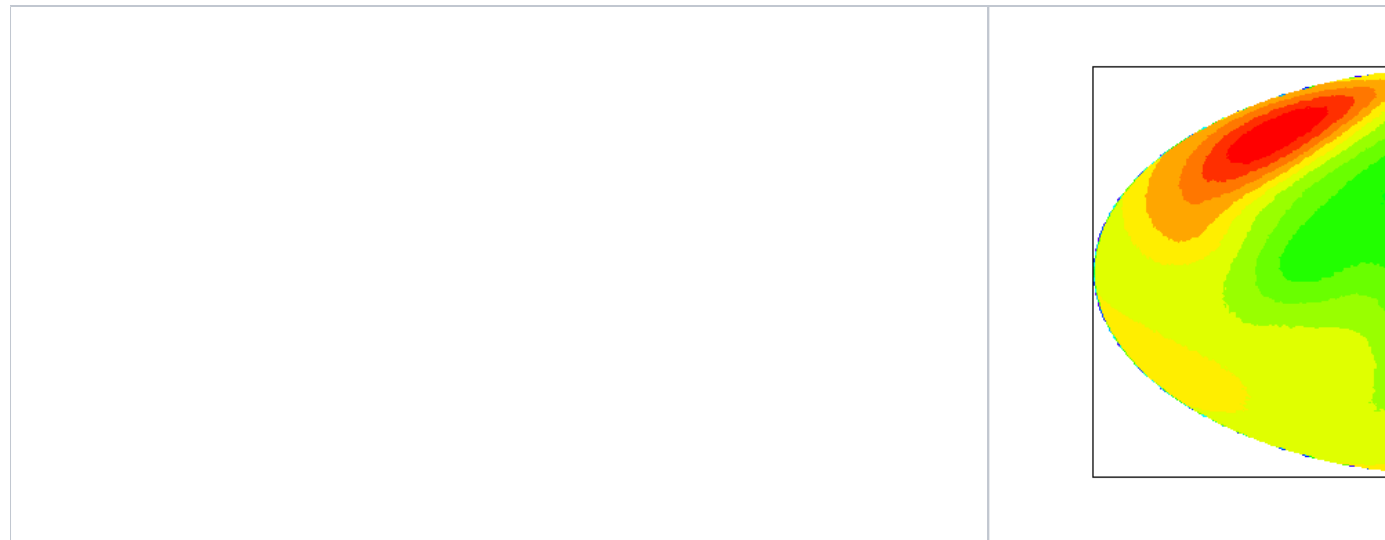
### Six hours run (n. 1681)



| Extragalactic Sources | RA (J2000) | DEC (J2000) | L       | B        | TS | Npred | Flux* | Flux err* | index | index err | Delta   | ID       |
|-----------------------|------------|-------------|---------|----------|----|-------|-------|-----------|-------|-----------|---------|----------|
| 3C273                 | 187.086    | 1.9163      | 289.583 | 64.1879  | 57 | 21    | 3.03  | 0.89      | 2.79  | 0.33      | 0°13.8' | 3C 273   |
| 3C279                 | 194.043    | -5.8081     | 305.096 | 57.0438  | 17 | 6     | 0.81  | 0.46      | 2.36  | 0.48      | 0° 1.5' | 3C 279   |
| 3C454.3               | 343.301    | 16.0643     | 85.8597 | -38.1524 | 43 | 12    | 1.67  | 0.67      | 2.19  | 0.31      | 0°12.3' | 3C 454.3 |

| Galactic Sources  | RA (J2000) | DEC (J2000) | L       | B        | TS  | Npred | Flux* | Flux err* | index | index err | Delta   | ID      |
|-------------------|------------|-------------|---------|----------|-----|-------|-------|-----------|-------|-----------|---------|---------|
| ASPJ053216p230319 | 83.6072    | 22.2849     | 184.315 | -5.65979 | 54  | 22    | 2.28  | 0.75      | 2.10  | 0.23      | 0°16.1' | Crab    |
| Geminga           | 98.4581    | 17.747      | 195.147 | 4.24034  | 306 | 63    | 5.71  | 0.94      | 1.90  | 0.11      | 0° 1.9' | Geminga |
| VelaPulsar        | 128.724    | -45.2135    | 263.534 | -2.87294 | 250 | 72    | 12.27 | 2.02      | 2.04  | 0.12      | 0° 5.4' | Vela    |

### Six hours run (n. 1682)

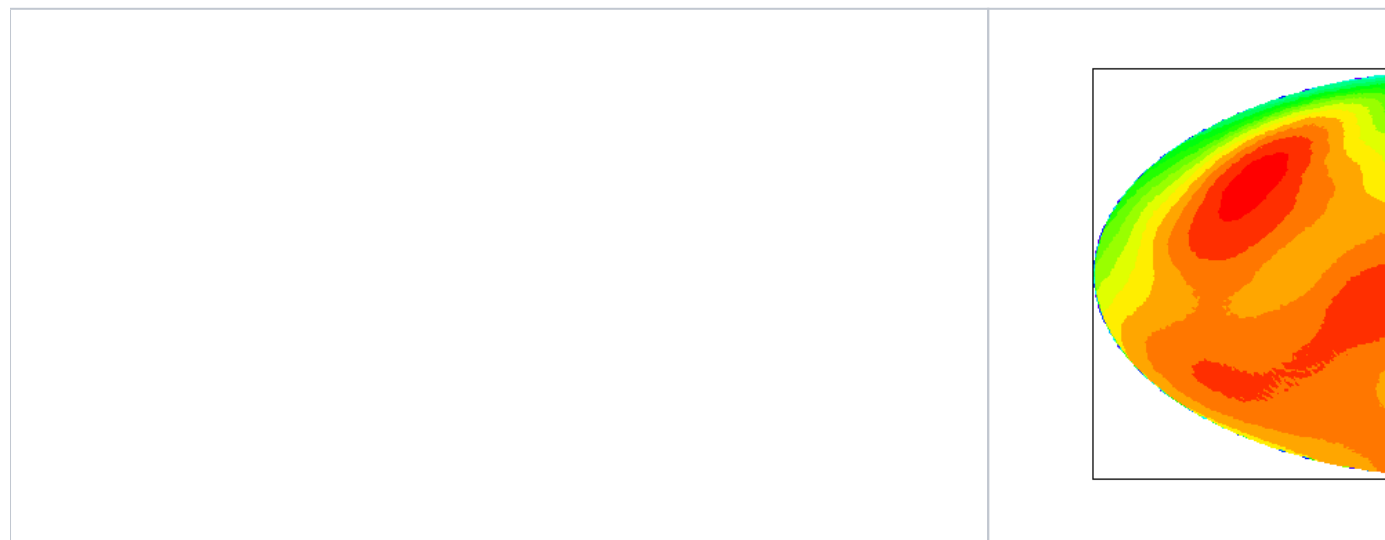


| Extragalactic Sources | RA (J2000) | DEC (J2000) | L       | B        | TS | Npred | Flux* | Flux err* | index | index err | Delta   | ID       |
|-----------------------|------------|-------------|---------|----------|----|-------|-------|-----------|-------|-----------|---------|----------|
| 3C273                 | 187.225    | 2.1751      | 289.775 | 64.4696  | 72 | 14    | 3.91  | 1.24      | 2.54  | 0.34      | 0° 8.2' | 3C 273   |
| ASPJ225344p172649     | 343.538    | 16.7164     | 86.5582 | -37.7359 | 25 | 8     | 1.65  | 0.81      | 2.17  | 0.40      | 0°34.1' | 3C 454.3 |

| Galactic Sources  | RA (J2000) | DEC (J2000) | L       | B        | TS  | Npred | Flux* | Flux err* | index | index err | Delta   | ID                 |
|-------------------|------------|-------------|---------|----------|-----|-------|-------|-----------|-------|-----------|---------|--------------------|
| CrabPulsar        | 83.75      | 21.75       | 184.844 | -5.83414 | 63  | 20    | 4.08  | 1.27      | 2.27  | 0.26      | 0°17.4' | Crab               |
| Geminga           | 98.3198    | 17.7901     | 195.048 | 4.14285  | 156 | 40    | 7.22  | 1.49      | 2.08  | 0.15      | 0° 9.3' | Geminga            |
| VelaPulsar        | 128.626    | -45.2172    | 263.496 | -2.93008 | 159 | 42    | 10.94 | 2.21      | 1.93  | 0.14      | 0° 9.4' | Vela               |
| ASPJ201908p392252 | 305.195    | 39.931      | 77.7231 | 1.9095   | 17  | 14    | 5.26  | 2.12      | 3.03  | 0.49      | 0°32.1' | LAT PSR J2021+4026 |

| UFOs or ID not found | RA (J2000) | DEC (J2000) | L       | B        | TS | Npred | Flux* | Flux err* | index | index err | Delta                   | ID                          |
|----------------------|------------|-------------|---------|----------|----|-------|-------|-----------|-------|-----------|-------------------------|-----------------------------|
| ASPJ184409m020557    | 281.258    | -2.2789     | 30.1734 | 0.385477 | 14 | 16    | 3.72  | 1.90      | 2.10  | 0.31      | 0°31.7' 0°54.5' 0°58.0' | EMS1256 \ EMS1252 \ EMS1257 |
| ASPJ234224p620134    | 355.599    | 62.0261     | 114.931 | 0.231598 | 8  | 6     | 1.36  | 0.92      | 2.43  | 0.54      | —                       | ??                          |

Six hours run (n. 1683)

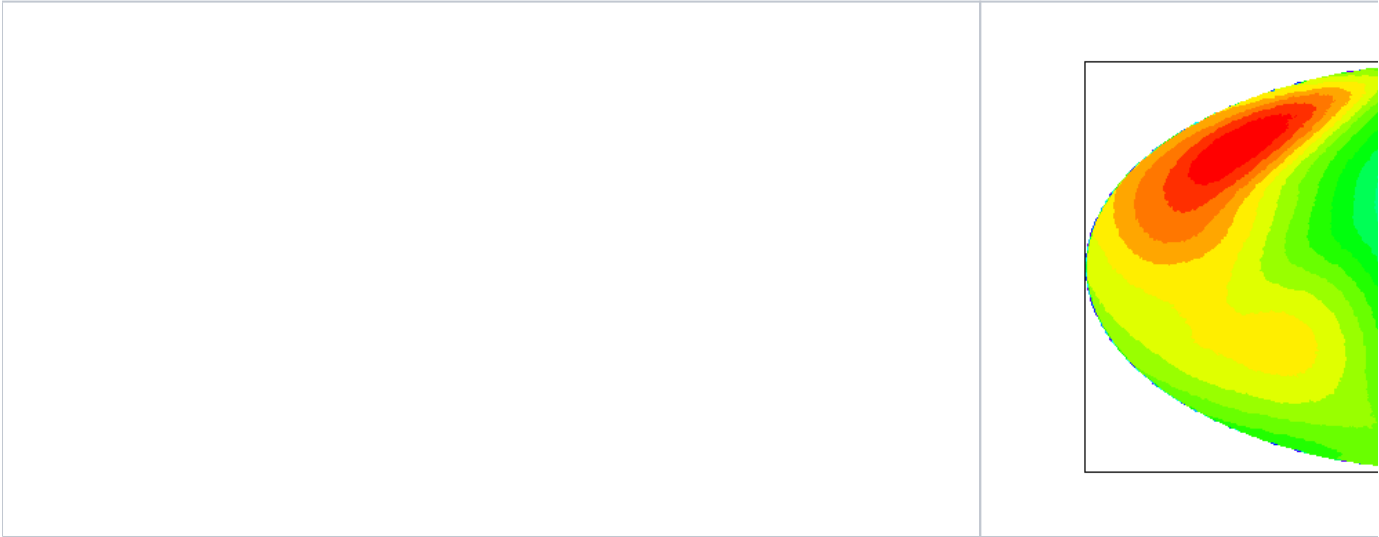


| Extragalactic Sources | RA (J2000) | DEC (J2000) | L       | B        | TS | Npred | Flux* | Flux err* | index | index err | Delta   | ID        |
|-----------------------|------------|-------------|---------|----------|----|-------|-------|-----------|-------|-----------|---------|-----------|
| 1633p382              | 248.44     | 38.2332     | 61.1925 | 42.6369  | 35 | 10    | 1.22  | 0.51      | 2.54  | 0.42      | 0°15.0' | 4C +38.41 |
| 3C454.3               | 343.785    | 16.2393     | 86.4746 | -38.2641 | 55 | 23    | 3.28  | 1.00      | 2.96  | 0.35      | 0°17.6' | 3C 454.3  |

| Galactic Sources  | RA (J2000) | DEC (J2000) | L       | B        | TS  | Npred | Flux* | Flux err* | index | index err | Delta   | ID        |
|-------------------|------------|-------------|---------|----------|-----|-------|-------|-----------|-------|-----------|---------|-----------|
| CrabPulsar        | 83.6036    | 21.9996     | 184.555 | -5.81542 | 148 | 42    | 4.99  | 1.08      | 2.18  | 0.17      | 0° 1.8' | Crab      |
| Geminga           | 98.4092    | 17.5384     | 195.312 | 4.10364  | 143 | 30    | 3.33  | 0.78      | 1.76  | 0.14      | 0°14.5' | Geminga   |
| VelaPulsar        | 128.713    | -45.2126    | 263.529 | -2.87828 | 128 | 36    | 15.02 | 3.34      | 2.08  | 0.16      | 0° 5.8' | Vela      |
| ASPJ183430m075230 | 278.088    | -7.0424     | 24.4913 | 1.00692  | 4   | 15    | 2.07  | 1.26      | 2.97  | 0.59      | 0°34.9' | G24.7+0.6 |

| UFOs or ID not found | RA (J2000) | DEC (J2000) | L       | B          | TS | Npred | Flux* | Flux err* | index | index err | Delta                   | ID                                                 |
|----------------------|------------|-------------|---------|------------|----|-------|-------|-----------|-------|-----------|-------------------------|----------------------------------------------------|
| ASPJ120930m625230    | 182.214    | -62.4997    | 298.039 | -0.0332033 | 5  | 5     | 1.78  | 1.22      | 2.28  | 0.52      | 0°11.1' 0°34.9'         | EMS0778 \ G298.60.0                                |
| ASPJ163124m471236    | 248.604    | -47.4456    | 336.917 | 0.166029   | 11 | 20    | 2.84  | 1.31      | 2.38  | 0.36      | 0°15.8' 0°23.6' 0°35.5' | G337.2+0.1<br>IGR J163584726<br>EMS1081<br>EMS1076 |

Six hours run (n. 1684)



| Extragalactic Sources | RA (J2000) | DEC (J2000) | L       | B       | TS | Npred | Flux* | Flux err* | index | index err | Delta   | ID     |
|-----------------------|------------|-------------|---------|---------|----|-------|-------|-----------|-------|-----------|---------|--------|
| 3C273                 | 187.553    | 1.6787      | 290.737 | 64.0467 | 90 | 23    | 4.68  | 1.22      | 2.63  | 0.29      | 0°27.8' | 3C 273 |

| Galactic Sources  | RA (J2000) | DEC (J2000) | L       | B        | TS  | Npred | Flux* | Flux err* | index | index err | Delta   | ID                 |
|-------------------|------------|-------------|---------|----------|-----|-------|-------|-----------|-------|-----------|---------|--------------------|
| ASPJ053216p230319 | 83.5013    | 22.1785     | 184.353 | -5.79958 | 54  | 25    | 2.61  | 0.81      | 2.15  | 0.23      | 0°12.0' | Crab               |
| Geminga           | 98.3094    | 17.7146     | 195.111 | 4.09954  | 241 | 54    | 4.60  | 0.84      | 1.86  | 0.12      | 0°10.4' | Geminga            |
| VelaPulsar        | 128.943    | -45.2106    | 263.625 | -2.74717 | 386 | 99    | 14.54 | 1.89      | 2.10  | 0.10      | 0° 4.8' | Vela               |
| ASPJ202138p413136 | 306.227    | 41.0654     | 79.1029 | 1.91431  | 10  | 17    | 1.94  | 0.95      | 2.24  | 0.35      | 0°53.3' | LAT PSR J2021+4026 |

| UFOs or ID not found | RA (J2000) | DEC (J2000) | L       | B       | TS | Npred | Flux* | Flux err* | index | index err | Delta | ID |
|----------------------|------------|-------------|---------|---------|----|-------|-------|-----------|-------|-----------|-------|----|
| ASPJ092709p130829    | 141.788    | 13.1415     | 218.711 | 40.4098 | 19 | 8     | 1.43  | 0.72      | 3.14  | 0.64      | –     | ?? |

\* F(E>100MeV) × 10<sup>6</sup> ph cm<sup>2</sup> s<sup>1</sup>