

Parameters for Inclusion In Summary Photon Database (SPD)

| <u>Parameter Name</u> | <u>Description</u> | <u>Unit, Range</u> |
|-------------------------------|--|---------------------------------------|
| Energy | : energy measurement | (GeV) |
| ΔE | : uncertainty in energy measurement | (GeV) |
| Right Ascension | : reconstructed celestial longitude | ($0^\circ \rightarrow 360^\circ$) |
| Declination | : reconstructed celestial latitude | ($-90^\circ \rightarrow +90^\circ$) |
| Error in localization | : uncertainty in reconstructed direction | (degrees) |
| Date | : Modified Julian Day number | (days) |
| Time | : UTC detection time | (86400.000000) |
| Fst_Cnv_Lyr, (or fst_X_lyr ?) | : conversion layer number, from Glastsim analysis | ($0 \rightarrow 15$) |
| Conversion point | : reconstructed conversion point in GLAST (3-vector) | (centimeters) |
| Cnv_Lyr_Hits, (clusters ?) | : number of SSD hits (and clusters of hits ?) | (dimensionless) |
| Path thru instrument | : best reconstruction trajectory thru GLAST (6-vector) | (dircosines, centimeters) |
| CAL moments | : moments of inertia tensor (corrected for leakage) | (GeV • cm ²) |

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|-----------------------|--|--------------------|
| Veto_Energy | : total energy detected in ACD | (MeV) |
| No_Vetos_Hit | : number of ACD tiles hit | (dimensionless) |
| Quality_Parm | : quality parameter for the fitted trajectory | (dimensionless) |
| Data quality | : distinct from track quality: overall status of event | (dimensionless) |
| Dead time | : calculated dead time for event | (seconds) |
| Instrument mode | : e.g. denoting {slew, diagnostic operations} | (dimensionless) |
| TKR, CAL-only flag | : 2-bit flag for {CAL-only, TKR-only, and both.} | (dimensionless) |
| ⊕-zenith angle | : angle from Zenith to Earth | (0° → ~ 115°) |
| ⊕-azimuth angle | : angle from +X S/C axis (?) to Earth equator | (0° → 360°) |
| S/C position | : 3-vector, from Earth center | (kilometers) |
| SW version | : which version of Glastsim for photon's analysis | (dimensionless) |
| N empty fields | : stuff not thought of yet | |