This table describes the columns in the main table of the 2FGL catalog fits format file, gll_psc_v06.fit. In addition to the main catalog table, the extensions Hist_Start, containing the starting values (MET sec) of the time intervals used for evaluating variability, the Good Time Intervals (GTI), and the ExtendedSources used in the catalog analysis are included in the fits format file.

Column Name	Format	Unit	UCD	Comment
Source_Name	18A		meta.id;meta.main	2FGL JHHMM.m+DDMM; constructed according to IAU Specifications for Nomenclature; m is decimal minutes of R.A.; in the name R.A. and decl. are truncated at 0.1 decimal minutes and 1, respectively; "c" indicates that the source is considered to be potentially confused with Galactic diffuse emission; "e" indicates the source was included as and extended source in the analysis.
RAJ2000	E	deg	pos.eq.ra;meta.main	Right Ascension (J2000).
DEJ2000	E	deg	pos.eq.ra;meta.main	Declination (J2000).
GLON	E	deg	pos.galactic.lon	Galactic Longitude.
GLAT	E	deg	pos.galactic.lat	Galactic Latitude.
Conf_68_SemiMajor	E	deg	pos;stat.error	Semimajor axis of error ellipse at 68% confidence.
Conf_68_SemiMinor	E	deg	pos;stat.error	Semiminor axis of error ellipse at 68% confidence.
Conf_68_PosAng	E	deg		Position angle of the 68% semimajor axis from celestial North, positive toward increasing RA (eastward).
Conf_95_SemiMajor	E	deg	pos;stat.error	Semimajor axis of error ellipse at 95% confidence.
Conf_95_SemiMinor	E	deg	pos;stat.error	Semiminor axis of error ellipse at 95% confidence.
Conf_95_PosAng	E	deg		Position angle of the 95% semimajor axis from celestial North, positive toward increasing RA (eastward).
Signif_Avg	E			Source detection significance in Gaussian σ units. Derived from the likelihood Test Statistic for 100 MeV-100 GeV analysis.
Pivot_Energy	E	MeV		Energy at which the error on differential photon flux is minimal (decorrelation energy for the power-law fit). Derived from the likelihood analysis for 100 MeV-100GeV.
Flux_Density	E	photon/cm^2/MeV/s	phot.flux.density	Differential photon flux at the Pivot_Energy. Derived from the likelihood analysis for 100 MeV-100 GeV.
Unc_Flux_Density	E	photon/cm^2/MeV/s	phot.flux.density;stat.error	1-σ error on differential photon flux at the Pivot_Energy.
Spectral_Index	E		spect.index	Best fit for the photon number power-law index. For LogParabola spectra, index at Pivot_Energy; for PLExpCutoff spectra, low energy index. Derived from the likelihood analysis for 100 MeV-100 GeV.
Unc_Spectral_Index	E		spect.index;stat.error	1-σ error on Spectral_Index.
Flux1000	E	photon/cm^2/s	phot.count;em.gamma	Photon flux for 1 GeV-100 GeV obtained by summing the photon flux values from likelihood analysis in the three

				bands from 1 GeV to 100 GeV. If Δflux/flux exceeds 0.5, then flux + 2*Δflux is given instead as an approximate 2-σ upper limit.
Unc_Flux1000	E	photon/cm^2/s	phot.count;em.gamma;stat.error	1-σ error on integral flux from 1 to 100 GeV obtained from summing in quadrature the errors from the three energy bands from 1 GeV to 100 GeV. If Δflux/flux exceeds 0.5, then this is set to 0.
Energy_Flux100	E	erg/cm^2/s	phot.flux;em.gamma	Energy flux from 100 MeV to 100 GeV obtained by spectral fitting from 100 MeV to 100 GeV. If Δflux/flux exceeds 0.5, then flux + 2*Δflux is given instead as an approximate 2-σ upper limit.
Unc_Energy_Flux100	E	erg/cm^2/s	phot.flux;em.gamma;stat.error	1-σ error on energy flux from 100 MeV to 100 GeV. If Δflux/flux exceeds 0.5, then this is set to 0.
Signif_Curve	E			Significance (in σ units) of the fit improvement between power-law and either LogParabola (for ordinary sources) or PLExpCutoff (for pulsars). A value greater than 16 triggers switching to the curved spectrum.
SpectrumType	18A			Name of the spectral type used (PowerLaw, LogParabola, PLExpCutoff). Note that there is no model called PLExpCutoff for gtlike; instead we use PLSuperExpCutoff with the Index2 parameter set to 1.
beta	E			Curvature parameter (beta) for LogParabola. NaN for other spectral types.
Unc_beta	E			1-σ error on beta for LogParabola. NaN for other spectral types.
Cutoff	E	MeV		Cutoff energy as exp(-E/ECutoff) for PLExpCutoff. NaN for other spectral types.
Unc_Cutoff	E	MeV		1-σ error on cutoff energy for PLSuperExpCutoff. NaN for other spectral types.
PowerLaw_Index	E			Best fit for the photon number power-law index assuming PowerLaw form. Derived from the likelihood analysis for 100 MeV to 100 GeV. Identical to Spectral_Index if SpectrumType is PowerLaw.
Flux30_100	E	photon/cm^2/s		Integral photon flux from 30 to 100 MeV - column intentionally set to NULL
Unc_Flux30_100	E	photon/cm^2/s		1-σ error on integral flux from 30 to 100 MeV - column intentionally set to NULL
Sqrt_TS30_100	E			Square root of the Test Statistic between 30 and 100 MeV - column intentionally set to NULL
Flux100_300	E	photon/cm^2/s		Integral photon flux from 100 to 300 MeV from the likelihood

			analysis in that band with fixed photon power-law index. 2-σ upper limit if the source is not significant in this band.
Unc_Flux100_300	E	photon/cm^2/s	1-σ error on integral flux from 100 to 300 MeV. Set to 0 if the source is not significant in this band.
Sqrt_TS100_300	E		Square root of the Test Statistic between 100 and 300 MeV
Flux300_1000	E	photon/cm^2/s	Integral photon flux from 300 MeV to 1 GeV from the likelihood analysis in that band with fixed photon power-law index. 2-σ upper limit if the source is not significant in this band.
Unc_Flux300_1000	E	photon/cm^2/s	1-σ error on integral flux from 300 MeV to 1 GeV. Set to 0 if the source is not significant in this band.
Sqrt_TS300_1000	E		Square root of the Test Statistic between 300 MeV and 1 GeV.
Flux1000_3000	E	photon/cm^2/s	Integral photon flux from 1 to 3 GeV from the likelihood analysis in that band with fixed photon power-law index. 2-σ upper limit if the source is not significant in this band.
Unc_Flux1000_3000	E	photon/cm^2/s	1-σ error on integral flux from 1 to 3 GeV. Set to 0 if the source is not significant in this band.
Sqrt_TS1000_3000	E		Square root of the Test Statistic between 1 and 3 GeV.
Flux3000_10000	E	photon/cm^2/s	Integral photon flux from 3 to 10 GeV from the likelihood analysis in that band with fixed photon power-law index. 2-σ upper limit if the source is not significant in this band.
Unc_Flux3000_10000	E	photon/cm^2/s	1-σ error on integral flux from 3 to 10 GeV. Set to 0 if the source is not significant in this band.
Sqrt_TS3000_10000	E		Square root of the Test Statistic between 3 and 10 GeV.
Flux10000_100000	E	photon/cm^2/s	Integral photon flux from 10 to 100 GeV from the likelihood analysis in that band with fixed photon power-law index. 2-σ upper limit if the source is not significant in this band.
Unc_Flux10000_100000	E	photon/cm^2/s	1-σ error on integral flux from 10 to 100 GeV. Set to 0 if the source is not significant in this band.
Sqrt_TS10000_100000	E		Square root of the Test Statistic between 10 and 100 GeV.
Variability_Index	E		Sum of 2*Log(Likelihood) comparison between the flux fitted in 24 time segments and a flat lightcurve over the full 2-year catalog interval. A value greater than 41.64 indicates < 1% chance of being a steady source. See the accompanying paper for details.
Signif_Peak	E		Source significance in the time interval giving the maximum monthly value of the photon flux as derived from the likelihood analysis for 100 MeV-100 GeV. If the probability of steady emission is >1%, this is NULL.
Flux_Peak	E	photon/cm^2/s	Maximum monthly value of the integral photon flux derived from the likelihood analysis for 100 MeV- 100 GeV. If the

			probability of steady emission is >1% this is NULL.
Unc_Flux_Peak	E	photon/cm^2/s	1-σ error on Flux_Peak.
Time_Peak	D	s	Mission Elapsed Time (seconds since 2001 January 1 0 UT) at the center of the interval with the maximum photon flux. If the probability of steady emission is >1%, this is NULL.
Peak_Interval	E	s	Length of interval in which peak integral photon flux was measured.
Flux_History	nE	photon/cm^2/s	Vector of the integral fluxes from 100 MeV to 100 GeV in each interval (best fit from likelihood analysis with spectral shape fixed to that obtained over 2 years).
Unc_Flux_History	nE	photon/cm^2/s	Vector of the 1-σ error on integral flux in each interval.
Unc_Flag_History	nB		Vector to flag error calculation used for Unc_Flux_History values. 0 if uncertainty is obtained from the covariance matrix; 1 if from (2-σ upper limit - best fit)/2.
Extended_Source_Name	18A		Cross-reference to the ExtendedSources extension, if applicable. NULL for sources treated as points in the catalog analysis.
0FGL_Name	18A		Name of a corresponding 0FGL source, if any.
1FGL_Name	18A		Name of a corresponding 1FGL source, if any.
ASSOC_GAM1	18A		Name of likely corresponding source from the 1AGL catalog, if any.
ASSOC_GAM2	18A		Name of likely corresponding source from the 3EG catalog, if any.
ASSOC_GAM3	18A		Name of likely corresponding source from the EGR catalog, if any.
TEVCAT_FLAG	A		TeV Association flag: 'N' for no TeV association, 'P' for small TeV source, 'E' for extended TeV source (diameter>40').
ASSOC_TEV	24A		Name of likely corresponding source from the TeVCat catalog, if any.
CLASS1	3A		Primary class designation of the identification or likely associated source. See accompanying paper for details of class designations and the association method.
CLASS2	3A		Secondary class designation of the identification or likely associated source.
ASSOC1	26A		Name of identified or likely associated source.
ASSOC2	26A		Alternate name of identified or likely associated source.
Flags	I		Analysis flags to indicate possible issues noted in detection or characterization of the source. The flag values are encoded in a single column with Flag n having value 2^{n-1}. Sources having no flags raised, Flags=0, are those without potential problems. Each condition present raises a unique bit. See