

# VTSCat – The VERITAS Data Catalog

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F.L. Whipple Observatory (Mt. Hopkins AZ, USA) ( $31^{\circ}40'N$ ,  $110^{\circ}57'W$ , 1.3 km a.s.l.)



# Array Performance

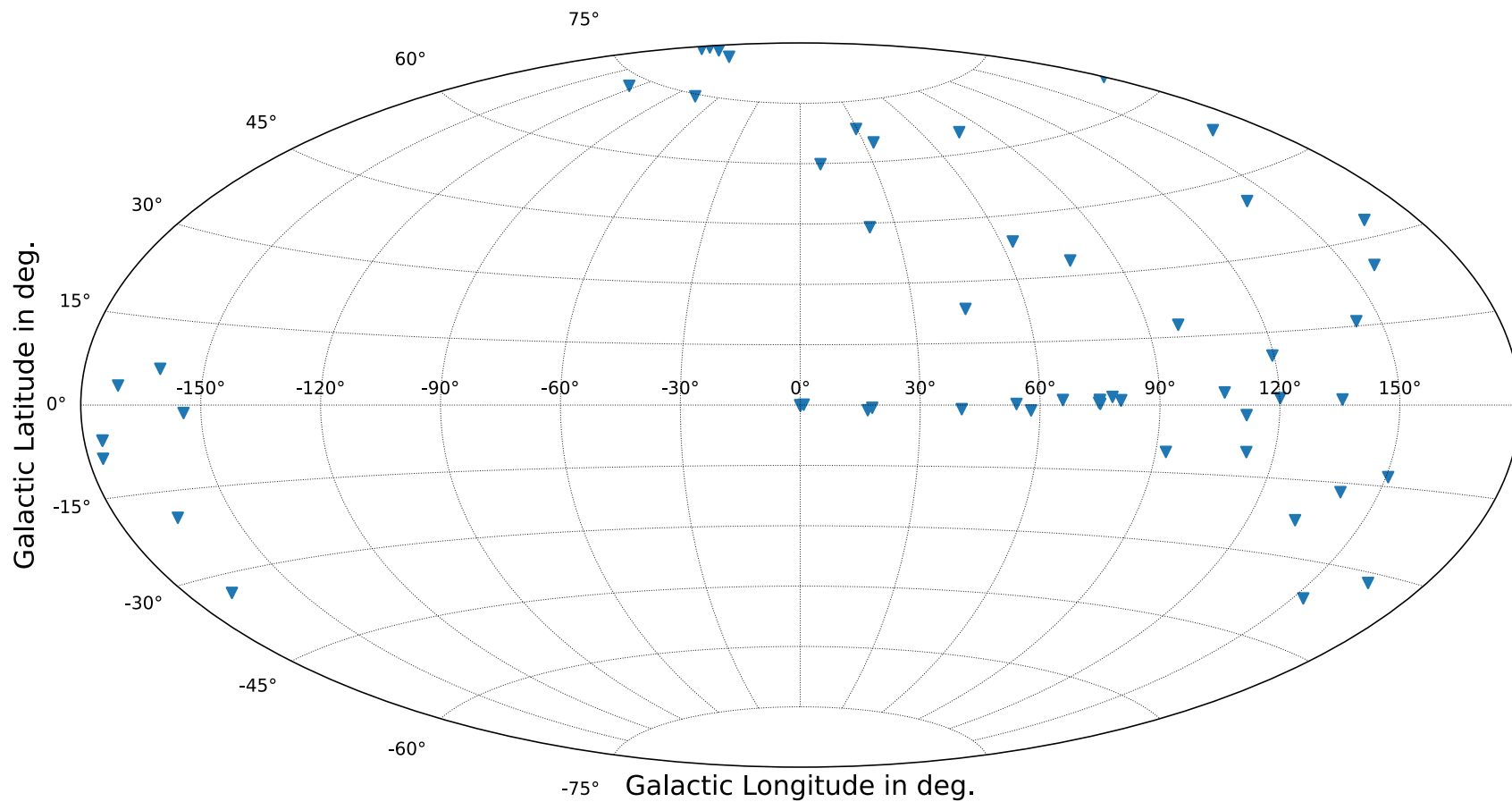
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Characteristic	Value
Energy range	100 GeV to >30 TeV
Energy resolution	15-25%
Peak effective area	100,000 m <sup>2</sup>
Angular resolution	<0.1 deg at 1 TeV (68% containment radius)
Source location accuracy	~50 arcseconds
Point source sensitivity	1% Crab in ~25h
Observation time per year*	~750 hours non-moonlight, ~200 hours moonlight

(<https://veritas.sao.arizona.edu/>)

\*Typically 70-100 hours total per month over 10 months

# VERITAS Detected Sources

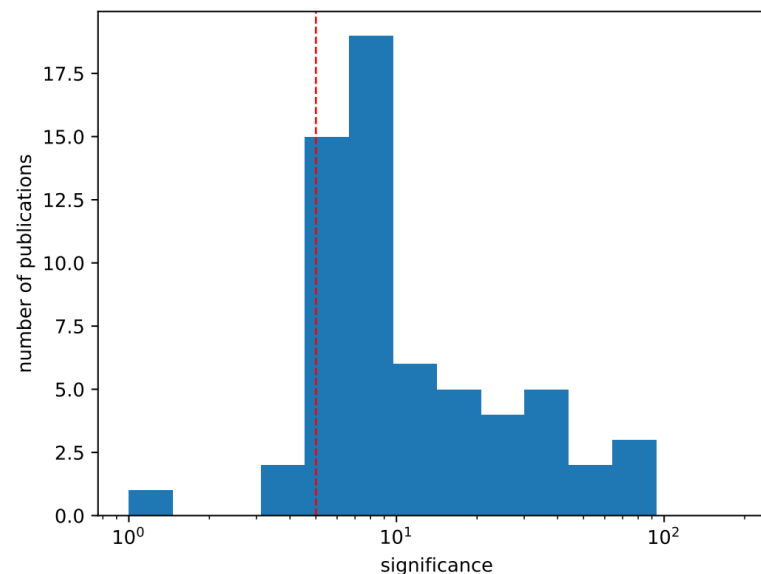
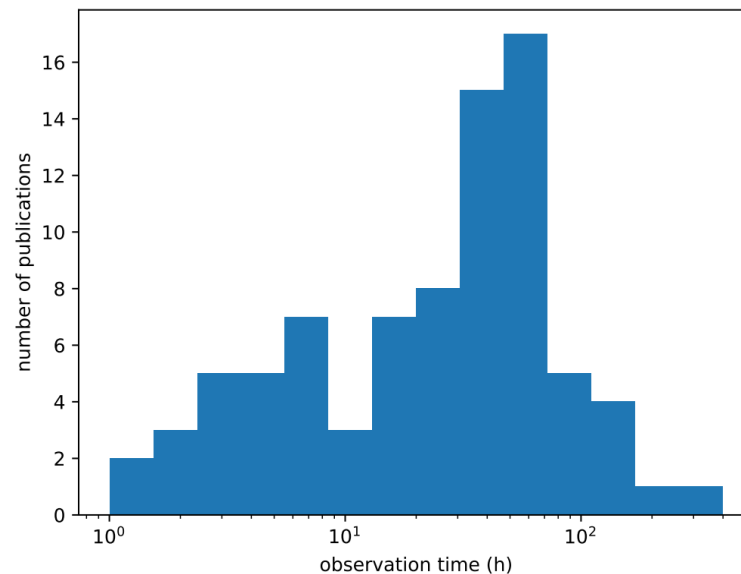


An Aitoff projection of VERITAS detected gamma-ray sources

# Catalog Details & Statistics



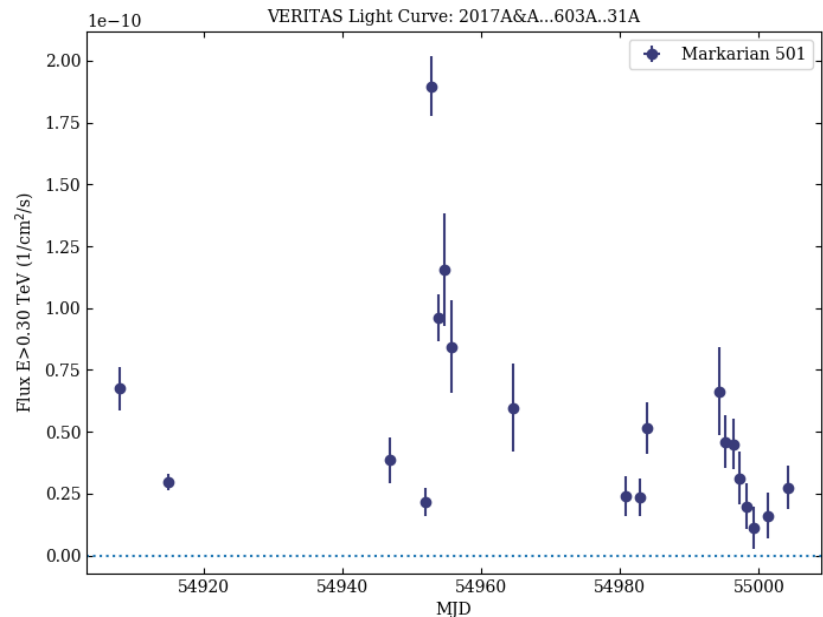
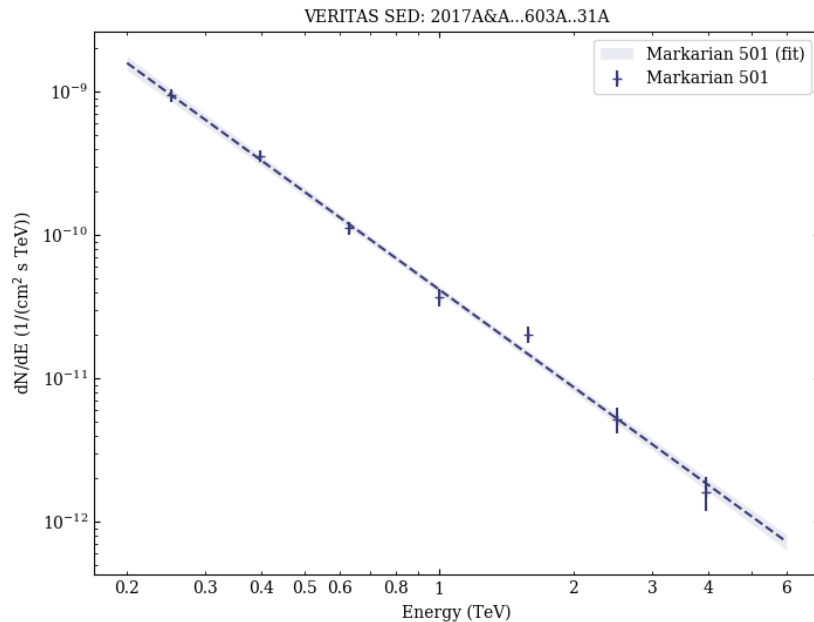
- Data on 57 gamma-ray sources
  - Collected from papers published between 2008-2020
  - Includes data on galactic & extragalactic sources, GRBs, some undetected objects, DM limits and EBL measurements
  - Available as electronic data tables at [Zenodo](#), [GitHub](#) & NASA's [HEASARC](#) (to be updated)
  - Periodically updated as new sources added and papers published
- No. of publications vs. observation time (upper) and significance, with dotted line as VERITAS publication threshold (lower)



# Data Types & Formats



Data Type	File Formats
Observation Details	yaml
Lightcurve	ecsv, png
Spectral Energy Distribution	ecsv, png
Skymap	fits



Mrk 501 light curve (upper) and SED (left) generated from data in A.A. Abdo et al. (2011) -

<https://doi.org/bf8rfk>

Thanks!