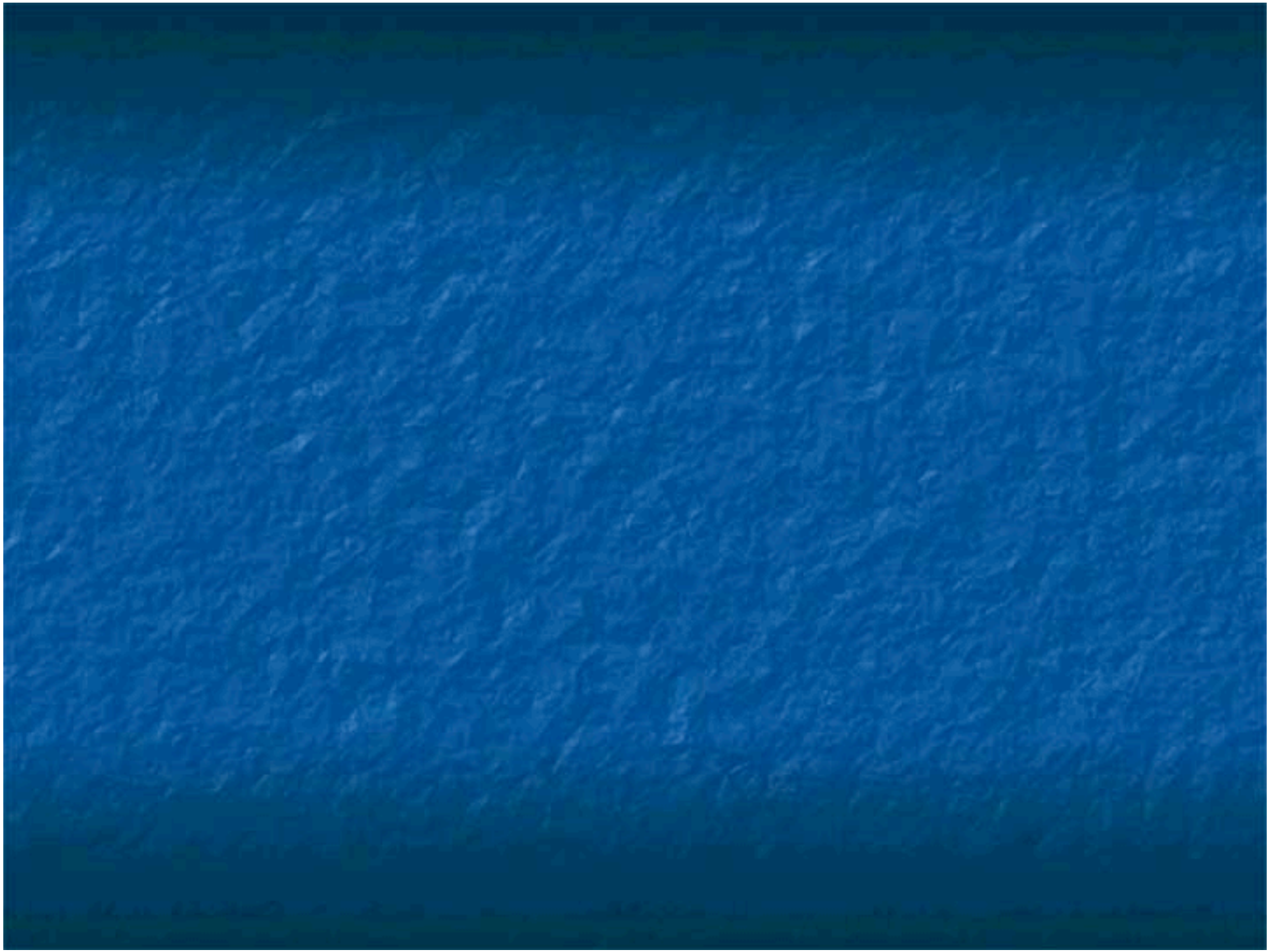
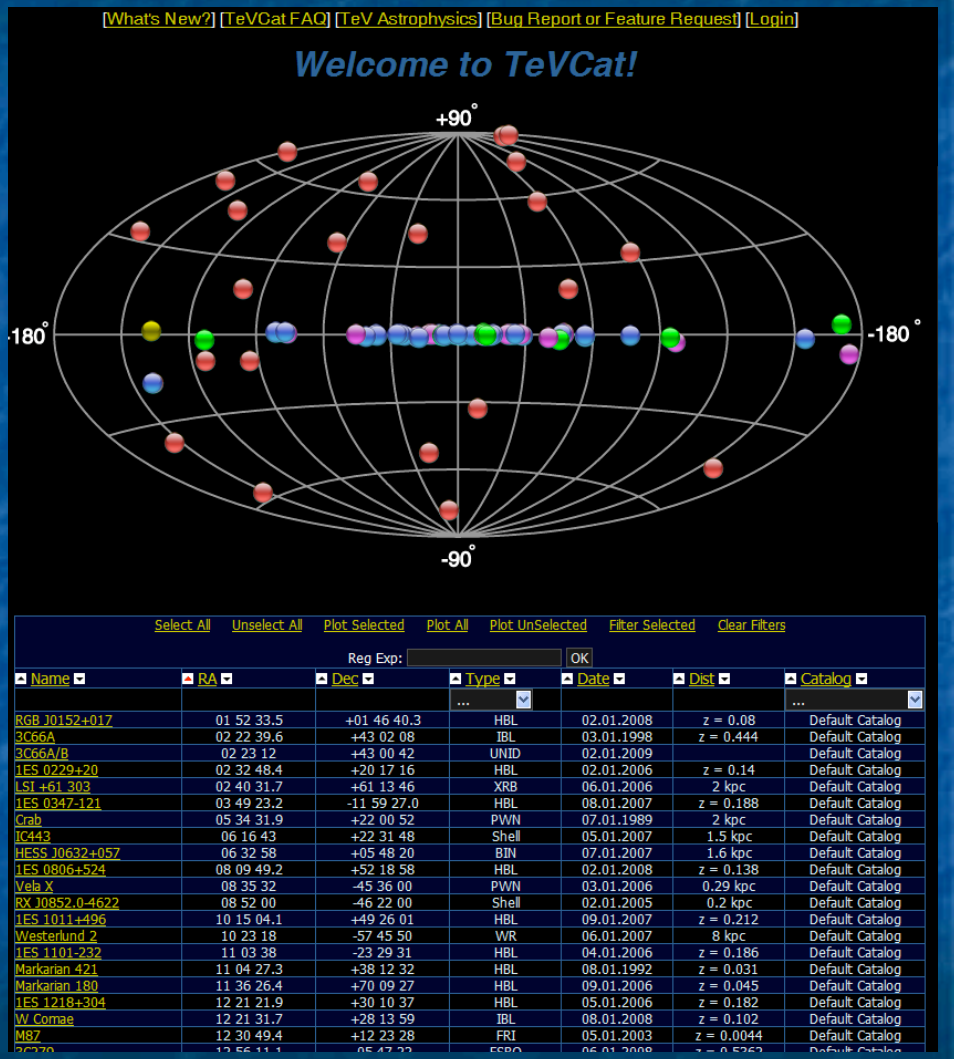


TeVCat: A Resource for TeV Astronomy

Scott Wakely &
Deirdre Horan

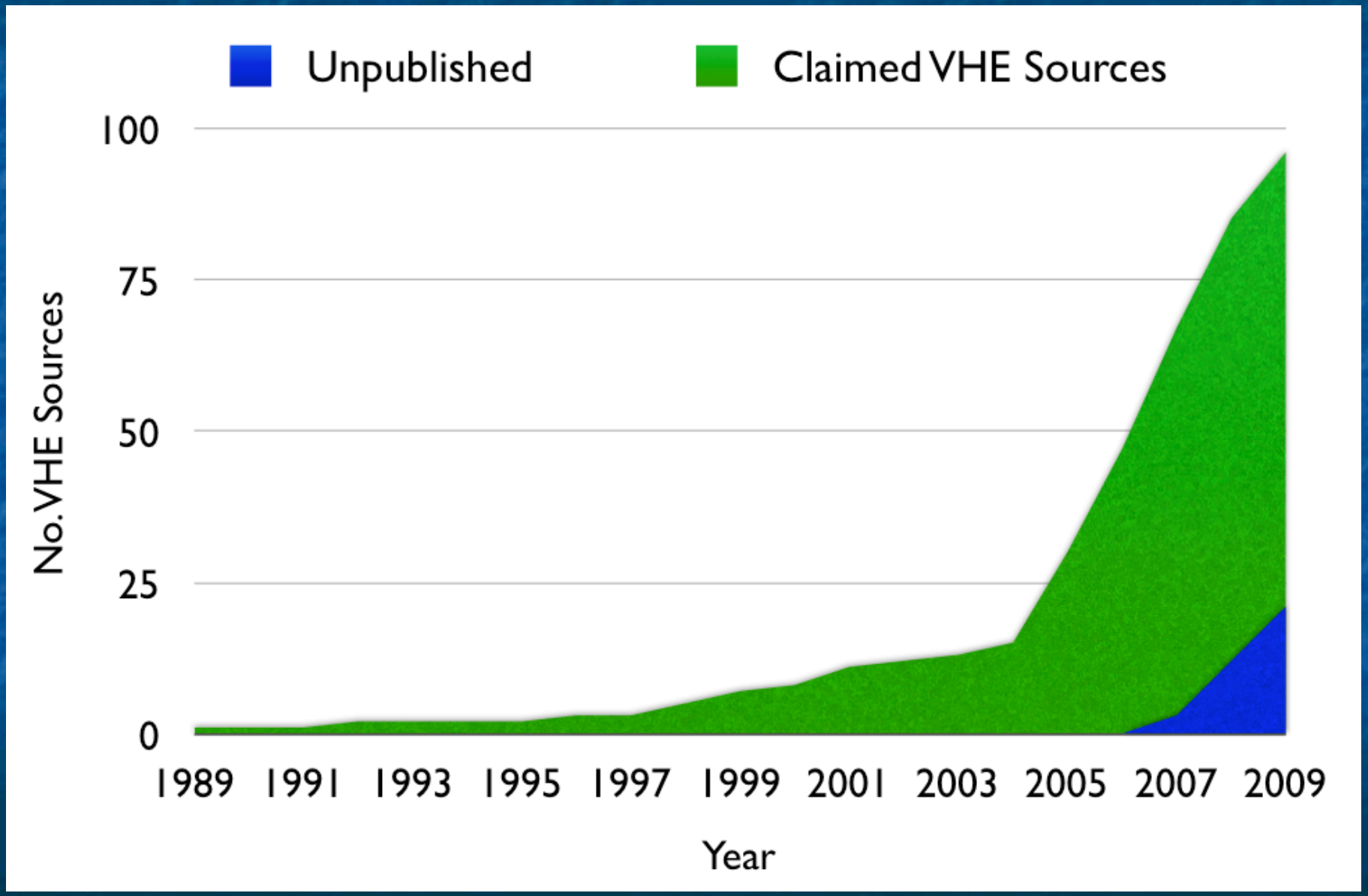
What is it?

- A Catalog of TeV Gamma-ray Sources
  - Interactive Sky Map
  - Source Properties
  - Links to relevant papers
  - Cross-references to other catalogs
- Simple Set of Observation-Planning Tools



Name	RA	Dec	Type	Date	Dist	Catalog
			...			...
RGB J0152+017	01 52 33.5	+01 46 40.3	HBL	02.01.2008	z = 0.08	Default Catalog
3C66A	02 22 39.6	+43 02 08	IBL	03.01.1998	z = 0.444	Default Catalog
3C66A/B	02 23 12	+43 00 42	UNID	02.01.2009		Default Catalog
1ES 0229+20	02 32 48.4	+20 17 16	HBL	02.01.2006	z = 0.14	Default Catalog
LSI +61 303	02 40 31.7	+61 13 46	XRB	06.01.2006	2 kpc	Default Catalog
1ES 0347-121	03 49 23.2	-11 59 27.0	HBL	08.01.2007	z = 0.188	Default Catalog
Crab	05 34 31.9	+22 00 52	PWN	07.01.1989	2 kpc	Default Catalog
IC443	06 16 43	+22 31 48	Shell	05.01.2007	1.5 kpc	Default Catalog
HESS J0632+057	06 32 58	+05 48 20	BIN	07.01.2007	1.6 kpc	Default Catalog
1ES 0806+524	08 09 49.2	+52 18 58	HBL	02.01.2008	z = 0.138	Default Catalog
Vela X	08 35 32	-45 36 00	PWN	03.01.2006	0.29 kpc	Default Catalog
RX J0852.0-4622	08 52 00	-46 22 00	Shell	02.01.2005	0.2 kpc	Default Catalog
1ES 1011+496	10 15 04.1	+49 26 01	HBL	09.01.2007	z = 0.212	Default Catalog
Westerlund 2	10 23 18	-57 45 50	WR	06.01.2007	8 kpc	Default Catalog
1ES 1101-232	11 03 38	-23 29 31	HBL	04.01.2006	z = 0.186	Default Catalog
Markarian 421	11 04 27.3	+38 12 32	HBL	08.01.1992	z = 0.031	Default Catalog
Markarian 180	11 36 26.4	+70 09 27	HBL	09.01.2006	z = 0.045	Default Catalog
1ES 1218+304	12 21 21.9	+30 10 37	HBL	05.01.2006	z = 0.182	Default Catalog
W Comae	12 21 31.7	+28 13 59	IBL	08.01.2008	z = 0.102	Default Catalog
M87	12 30 49.4	+12 23 28	FRI	05.01.2003	z = 0.0044	Default Catalog

Why?

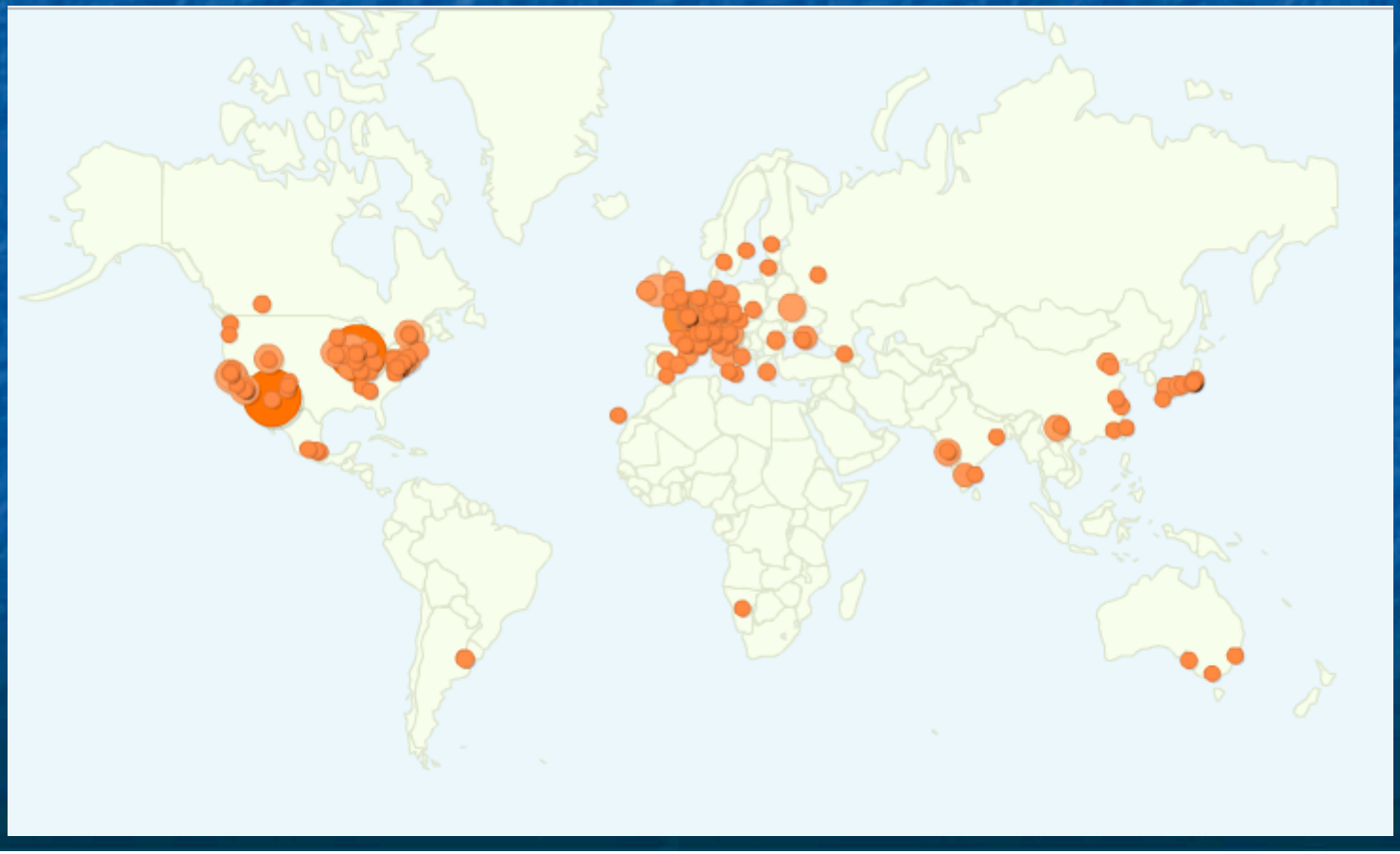

Unpublished
Claimed VHE Sources
100
75
50
25
0
No. VHE Sources
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
Year

Goals/Philosophy

- Limit the scope
  - Allows focus on specialized tools/information
  - Compare to:
    - Green's SNR Catalog: 274 objects
    - Simbad: 4,680,808 objects
- Make it easy to extract information
  - For instance:
    - Top 10 most distant HBLs
    - How many TeV PWN are there?
- Make it fun
  - But not frivolous

Usage

- 2200+ pages per month, from all over



Usage

- 2200+ pages per month, from all over

So, what does it do?

[What's New?] [TeVCat FAQ] [TeV Astrophysics] [Bug Report or Feature Request] [Login]

Welcome to TeVCat!

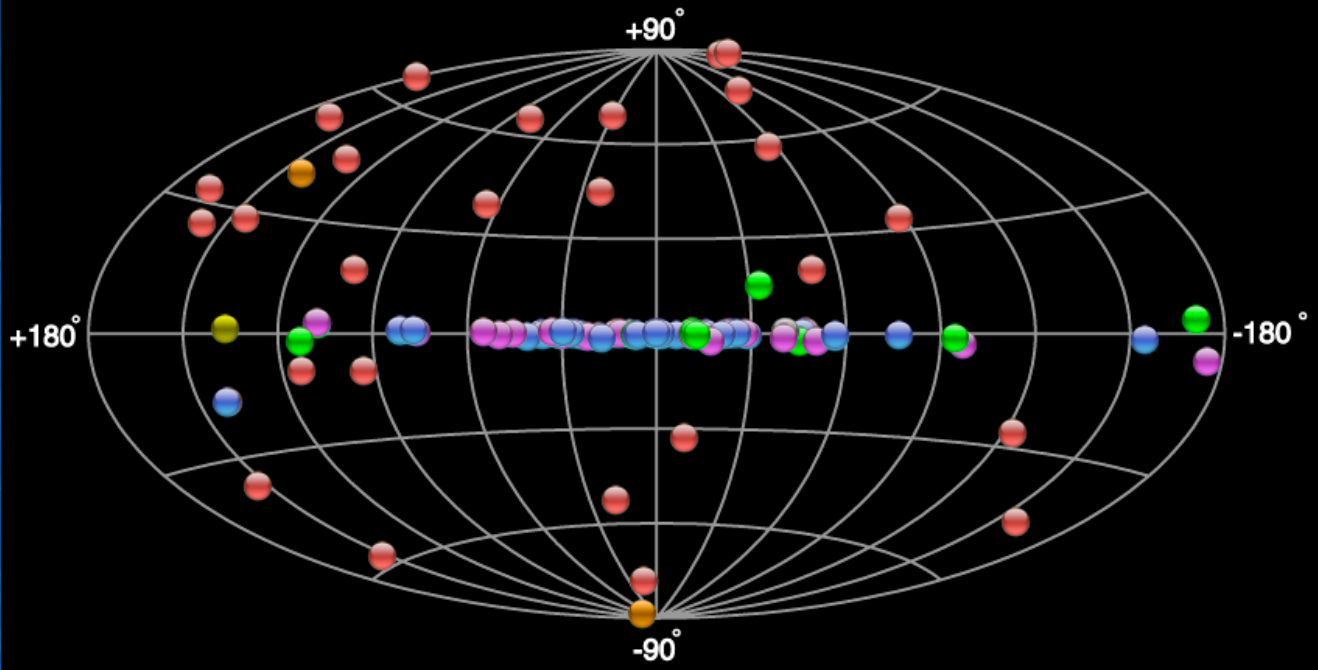


Table Control | Map Control | Tools | Legend

Table Columns
☑ Name ☑ RA
☑ Dec ☑ Type
☐ Discoverer
☑ Date ☑ Distance
Select

Catalogs
Default Catalog
Newly Announced
Other Sources
Source Candidates
☑ Filter by Catalog

Select All | Unselect All | Plot Selected | Plot All | Plot UnSelected | Filter Selected | Clear Filters

Reg Exp: OK

Name	RA	Dec	Type	Date	Dist	Catalog
			Shell			...
NGC 253	00 47 06	-25 18 35	Starburst	07.01.2009	2500 kpc	Newly Announced
RGB J0152+017	01 52 33.5	+01 46 40.3	HBL	02.01.2008	z = 0.08	Default Catalog
3C66A	02 22 39.6	+43 02 08	IBL	03.01.1998	z = 0.444	Default Catalog
3C66A/B	02 23 12	+43 00 42	UNID	02.01.2009		Default Catalog
1ES 0229+20	02 32 48.4	+20 17 16	HBL	02.01.2006	z = 0.14	Default Catalog
LSI +61 303	02 40 31.7	+61 13 46	XRB	06.01.2006	2 kpc	Default Catalog
1ES 0347-121	03 49 23.2	-11 59 27.0	HBL	08.01.2007	z = 0.188	Default Catalog
Crab	05 34 31.9	+22 00 52	PWN	07.01.1989	2 kpc	Default Catalog
PKS 0548-322	05 50 42.9	-32 16 34	HBL		z = 0.069	Newly Announced
IC443	06 16 43	+22 31 48	Shell	05.01.2007	1.5 kpc	Default Catalog
HESS J0632+057	06 32 58	+05 48 20	BIN	07.01.2007	1.6 kpc	Default Catalog
RGB J0710+591	07 10 30.1	+59 08 20.5	HBL		z = 0.125	Newly Announced
S5 0716+714	07 21 53.4	+71 20 36	LBL		z = 0.31	Newly Announced
1ES 0806+524	08 09 49.2	+52 18 58	HBL	02.01.2008	z = 0.138	Default Catalog
Vela X	08 35 32	-45 36 00	PWN	03.01.2006	0.29 kpc	Default Catalog
RX J0852.0-4622	08 52 00	-46 22 00	Shell	02.01.2005	0.2 kpc	Default Catalog
M82	09 55 52.18	+69 40 48.7	Starburst		3900 kpc	Newly Announced
1ES 1011+496	10 15 04.1	+49 26 01	HBL	09.01.2007	z = 0.212	Default Catalog
Westerlund 2	10 23 18	-57 45 50	WR	06.01.2007	8 kpc	Default Catalog

[What's New?] [TeVCat FAQ] [TeV Astrophysics] [Bug Report or Feature Request] [Login]

Links

Welcome to TeVCat!

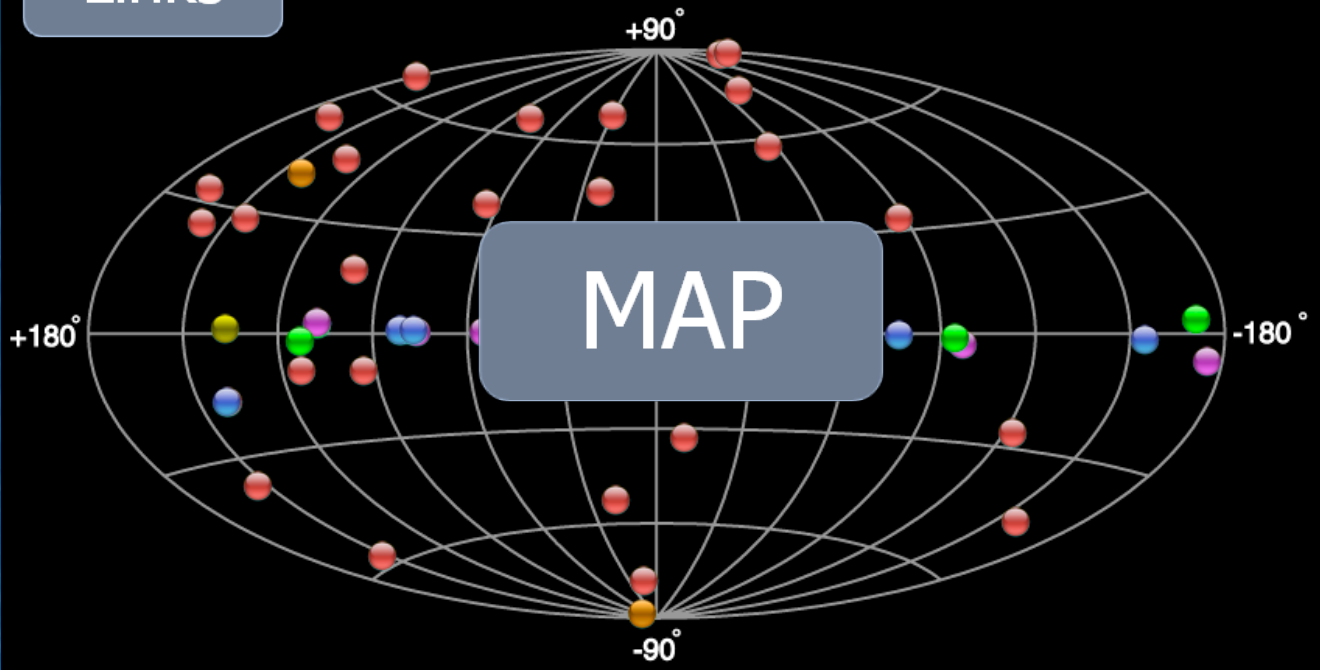


Table Control | Map Control | Tools | Legend

Table Columns
- ☑ Name ☑ RA
- ☑ Dec ☑ Type
- ☐ Discoverer

Control

Source Candidates

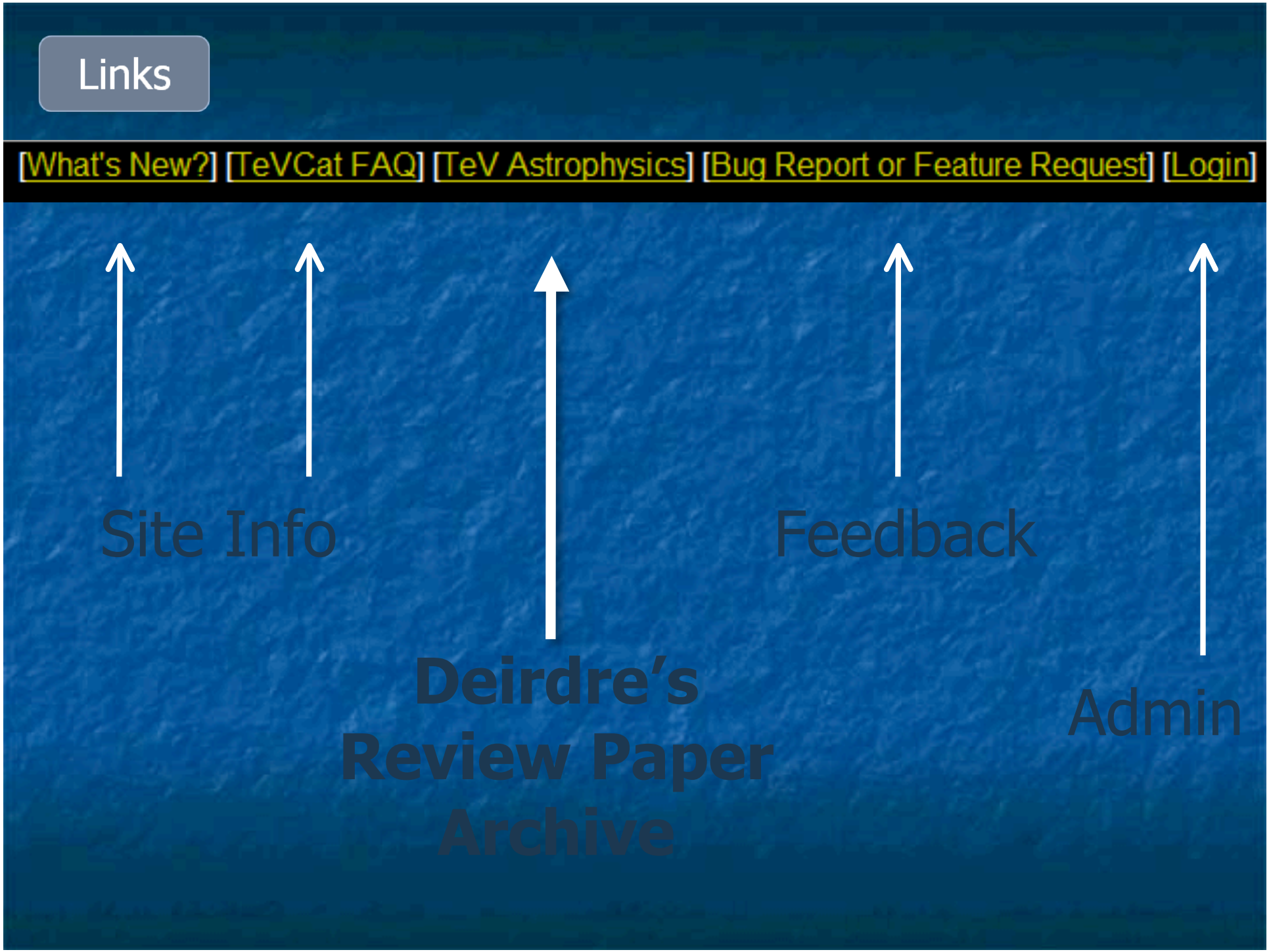
☑ Filter by Catalog

Select All | Unselect All | Plot Selected | Plot All | Plot UnSelected | Filter Selected | Clear Filters

Reg Exp: OK

Table

Name	RA	Dec	Type	Date	Dist	Catalog
			Shell			...
NGC 253	00 47 06	-25 18 35	Starburst	07.01.2009	2500 kpc	Newly Announced
RGB J0152+017	01 52 33.5			.01.2008	z = 0.08	Default Catalog
3C66A	02 22 39.6			.01.1998	z = 0.444	Default Catalog
3C66A/B	02 23 12			.01.2009		Default Catalog
1ES 0229+20	02 32 48.4			.01.2006	z = 0.14	Default Catalog
LSI +61 303	02 40 31.7			.01.2006	2 kpc	Default Catalog
1ES 0347-121	03 49 23.2			.01.2007	z = 0.188	Default Catalog
Crab	05 34 31.9			.01.1989	2 kpc	Default Catalog
PKS 0548-322	05 50 42.9	-32 16 34	HBL		z = 0.069	Newly Announced
IC443	06 16 43	+22 31 48	Shell	05.01.2007	1.5 kpc	Default Catalog
HESS J0632+057	06 32 58	+05 48 20	BIN	07.01.2007	1.6 kpc	Default Catalog
RGB J0710+591	07 10 30.1	+59 08 20.5	HBL		z = 0.125	Newly Announced
S5 0716+714	07 21 53.4	+71 20 36	LBL		z = 0.31	Newly Announced
1ES 0806+524	08 09 49.2	+52 18 58	HBL	02.01.2008	z = 0.138	Default Catalog
Vela X	08 35 32	-45 36 00	PWN	03.01.2006	0.29 kpc	Default Catalog
RX J0852.0-4622	08 52 00	-46 22 00	Shell	02.01.2005	0.2 kpc	Default Catalog
M82	09 55 52.18	+69 40 48.7	Starburst		3900 kpc	Newly Announced
1ES 1011+496	10 15 04.1	+49 26 01	HBL	09.01.2007	z = 0.212	Default Catalog
Westerlund 2	10 23 18	-57 45 50	WR	06.01.2007	8 kpc	Default Catalog


Links
[What's New?] [TeVCat FAQ] [TeV Astrophysics] [Bug Report or Feature Request] [Login]
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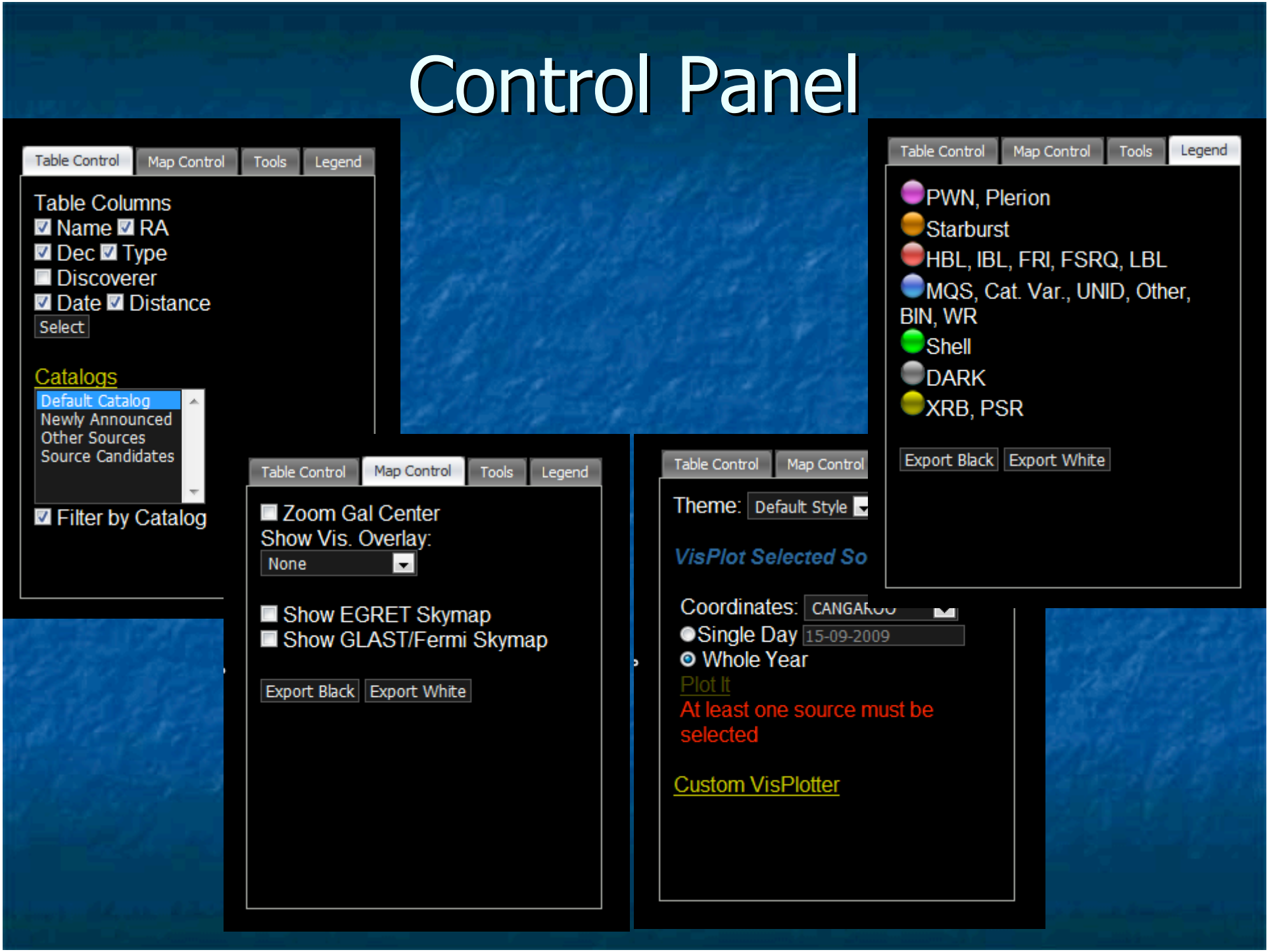
Deirdre's Review Paper Archive
Feedback
Admin

Control Panel



The Table

Select All | Unselect All | Plot Selected | Plot All | Plot UnSelected | Filter Selected | Clear Filters

Reg Exp: OK

Name	RA	Dec	Type	Date	Dist	Catalog
			...			...
RGB J0152+017	01 52 33.5	+01 46 40.3	HBL	02.01.2008	z = 0.08	Default Catalog
3C66A	02 22 39.6	+43 02 08	IBL	03.01.1998	z = 0.444	Default Catalog
3C66A/B	02 23 12	+43 00 42	UNID	02.01.2009		Default Catalog
1ES 0229+20	02 32 48.4	+20 17 16	HBL	02.01.2006	z = 0.14	Default Catalog
LSI +61 303	02 40 31.7	+61 13 46	XRB	06.01.2006	2 kpc	Default Catalog
1ES 0347-121	03 49 23.2	-11 59 27.0	HBL	08.01.2007	z = 0.188	Default Catalog
Crab	05 34 31.9	+22 00 52	PWN	07.01.1989	2 kpc	Default Catalog
IC443	06 16 43	+22 31 48	Shell	05.01.2007	1.5 kpc	Default Catalog
HESS J0632+057	06 32 58	+05 48 20	BIN	07.01.2007	1.6 kpc	Default Catalog
1ES 0806+524	08 09 49.2	+52 18 58	HBL	02.01.2008	z = 0.138	Default Catalog
Vela X	08 35 32	-45 36 00	PWN	03.01.2006	0.29 kpc	Default Catalog
RX J0852.0-4622	08 52 00	-46 22 00	Shell	02.01.2005	0.2 kpc	Default Catalog
1ES 1011+496	10 15 04.1	+49 26 01	HBL	09.01.2007	z = 0.212	Default Catalog
Westerlund 2	10 23 18	-57 45 50	WR	06.01.2007	8 kpc	Default Catalog
1ES 1101-232	11 03 38	-23 29 31	HBL	04.01.2006	z = 0.186	Default Catalog
Markarian 421	11 04 27.3	+38 12 32	HBL	08.01.1992	z = 0.031	Default Catalog
Markarian 180	11 36 26.4	+70 09 27	HBL	09.01.2006	z = 0.045	Default Catalog
1ES 1218+304	12 21 21.9	+30 10 37	HBL	05.01.2006	z = 0.182	Default Catalog
W Comae	12 21 31.7	+28 13 59	IBL	08.01.2008	z = 0.102	Default Catalog
M87	12 30 49.4	+12 23 28	FRI	05.01.2003	z = 0.0044	Default Catalog
3C279	12 56 11.1	-05 47 22	FSRQ	06.01.2008	z = 0.5362	Default Catalog
PSR B1259-63	13 02 49.3	-63 49 53	BIN	12.01.2004	1.5 kpc	Default Catalog

The Table

Select All | Unselect All | Plot Selected | Plot All | Plot UnSelected | Filter Selected | Clear Filters

Reg Exp: OK

Name	RA	Dec	Type	Date	Dist	Catalog
			...			...
Markarian 180	11 36 26.4	+70 09 27	HBL	09.01.2006	z = 0.045	Default Catalog
1ES 1959+650	19 59 59.9	+65 08 55	HBL	08.01.1999	z = 0.048	Default Catalog
LSI +61 303	02 40 31.7	+61 13 46	XRB	06.01.2006	2 kpc	Default Catalog
Cassiopeia A	23 23 24	+58 48 54	Shell	04.01.2001	3.4 kpc	Default Catalog
1ES 0806+524	08 09 49.2	+52 18 58	HBL	02.01.2008	z = 0.138	Default Catalog
1ES 2344+514	23 47 04.8	+51 42 18	HBL	07.01.1998	z = 0.044	Default Catalog
1ES 1011+496	10 15 04.1	+49 26 01	HBL	09.01.2007	z = 0.212	Default Catalog
3C66A	02 22 39.6	+43 02 08	IBL	03.01.1998	z = 0.444	Default Catalog
3C66A/B	02 23 12	+43 00 42	UNID	02.01.2009		Default Catalog
H 1426+428	14 28 32.6	+42 40 21	HBL	02.01.2002	z = 0.129	Default Catalog
BL Lacertae	22 02 43.3	+42 16 40	LBL	04.01.2001	z = 0.069	Default Catalog
TeV J2032+4130	20 32 07	+41 30 30	UNID	12.01.2001		Default Catalog
MGRO J2031+41	20 31 00	+41 00 00	UNID	08.01.2007		Default Catalog
Markarian 501	16 53 52.2	+39 45 36	HBL	01.01.1996	z = 0.034	Default Catalog
Markarian 421	11 04 27.3	+38 12 32	HBL	08.01.1992	z = 0.031	Default Catalog
MilagroDiffuse	20 20 00	+38 00 00	UNID	02.01.2005		Default Catalog
MGRO J2019+37	20 19 00	+37 00 00	PWN	03.01.2007		Default Catalog
1ES 1218+304	12 21 21.9	+30 10 37	HBL	05.01.2006	z = 0.182	Default Catalog
W Comae	12 21 31.7	+28 13 59	IBL	08.01.2008	z = 0.102	Default Catalog
IC443	06 16 43	+22 31 48	Shell	05.01.2007	1.5 kpc	Default Catalog
Crab	05 34 31.9	+22 00 52	PWN	07.01.1989	2 kpc	Default Catalog
1ES 0229+20	02 32 48.4	+20 17 16	HBL	02.01.2006	z = 0.14	Default Catalog

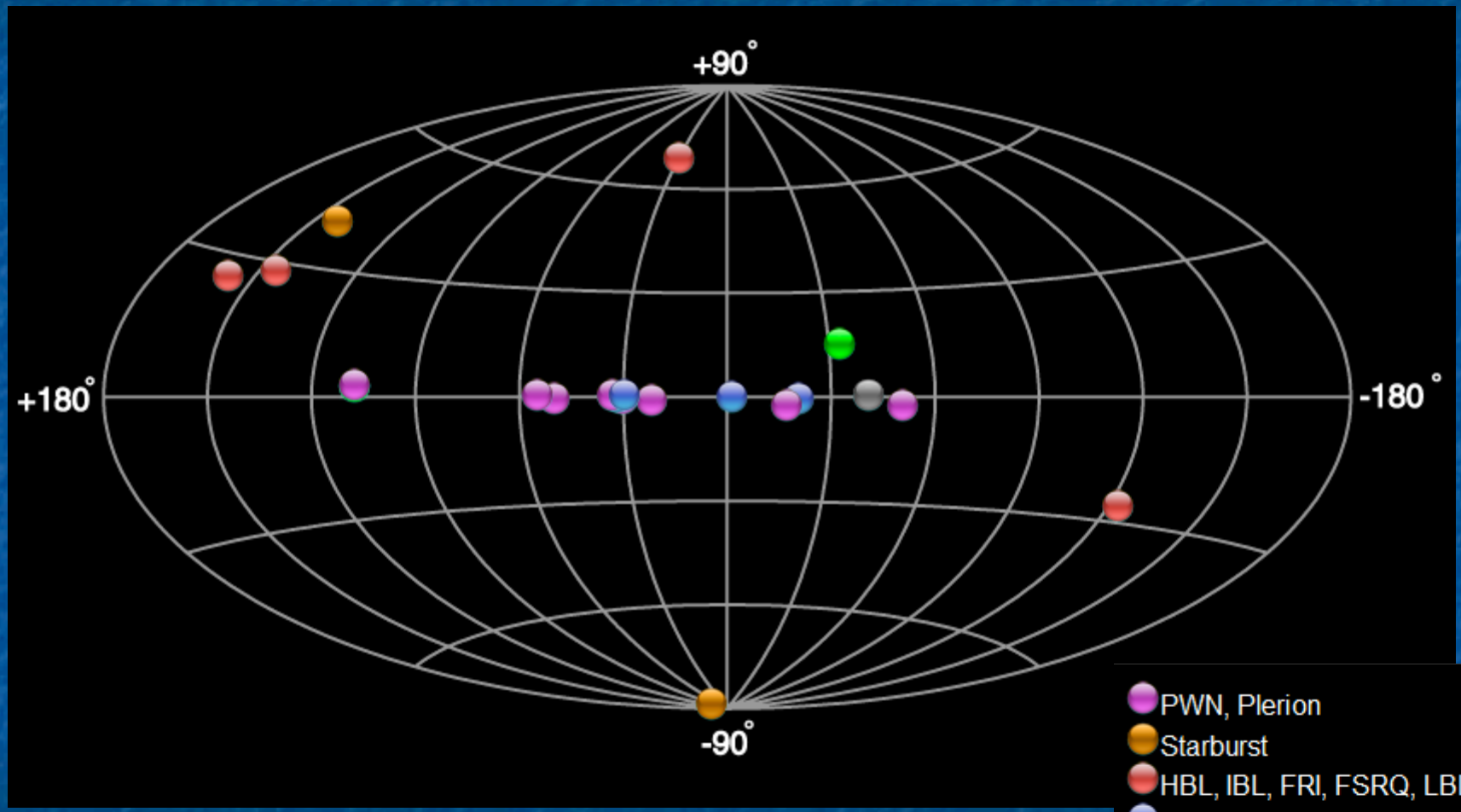
The Table

Select All | Unselect All | Plot Selected | Plot All | Plot UnSelected | Filter Selected | Clear Filters

Reg Exp: OK

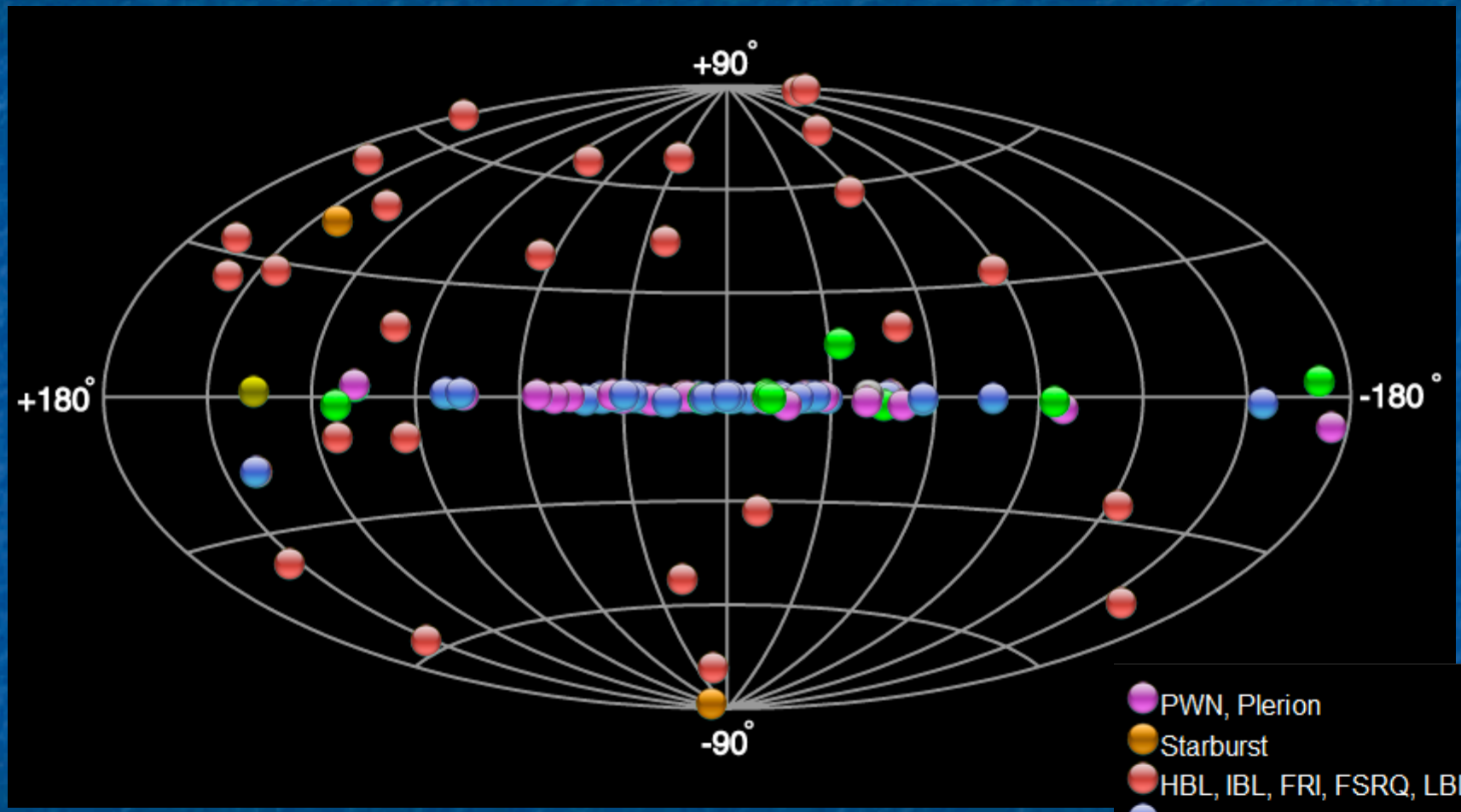
Name	RA	Dec	Type	Date	Dist	Catalog
			...			...
3C279	12 56 11.1	-05 47 22	FSRQ	06.01.2008	z = 0.5362	Default Catalog
3C66A	02 22 39.6	+43 02 08	IBL	03.01.1998	z = 0.444	Default Catalog
PG 1553+113	15 55 43.0	+11 11 24	HBL	03.01.2006	z = 0.35	Default Catalog
1ES 1011+496	10 15 04.1	+49 26 01	HBL	09.01.2007	z = 0.212	Default Catalog
1ES 0347-121	03 49 23.2	-11 59 27.0	HBL	08.01.2007	z = 0.188	Default Catalog
1ES 1101-232	11 03 38	-23 29 31	HBL	04.01.2006	z = 0.186	Default Catalog
1ES 1218+304	12 21 21.9	+30 10 37	HBL	05.01.2006	z = 0.182	Default Catalog
H 2356-309	23 59 09	-30 37 22	HBL	04.01.2006	z = 0.165	Default Catalog
1ES 0229+20	02 32 48.4	+20 17 16	HBL	02.01.2006	z = 0.14	Default Catalog
1ES 0806+524	08 09 49.2	+52 18 58	HBL	02.01.2008	z = 0.138	Default Catalog
H 1426+428	14 28 32.6	+42 40 21	HBL	02.01.2002	z = 0.129	Default Catalog
PKS 2155-304	21 58 52.7	-30 13 18	HBL	06.01.1999	z = 0.116	Default Catalog
W Comae	12 21 31.7	+28 13 59	IBL	08.01.2008	z = 0.102	Default Catalog
RGB J0152+017	01 52 33.5	+01 46 40.3	HBL	02.01.2008	z = 0.08	Default Catalog
PKS 2005-489	20 09 29.3	-48 49 19	HBL	06.01.2005	z = 0.071	Default Catalog
BL Lacertae	22 02 43.3	+42 16 40	LBL	04.01.2001	z = 0.069	Default Catalog
1ES 1959+650	19 59 59.9	+65 08 55	HBL	08.01.1999	z = 0.048	Default Catalog
Markarian 180	11 36 26.4	+70 09 27	HBL	09.01.2006	z = 0.045	Default Catalog
1ES 2344+514	23 47 04.8	+51 42 18	HBL	07.01.1998	z = 0.044	Default Catalog
Markarian 501	16 53 52.2	+39 45 36	HBL	01.01.1996	z = 0.034	Default Catalog
Markarian 421	11 04 27.3	+38 12 32	HBL	08.01.1992	z = 0.031	Default Catalog
M87	12 30 49.4	+12 23 28	FRI	05.01.2003	z = 0.0044	Default Catalog

The Map



Galactic Coordinates - Aitoff Projection
Newly Announced Only

The Map



Galactic Coordinates - Aitoff Projection
All Sources

The Map

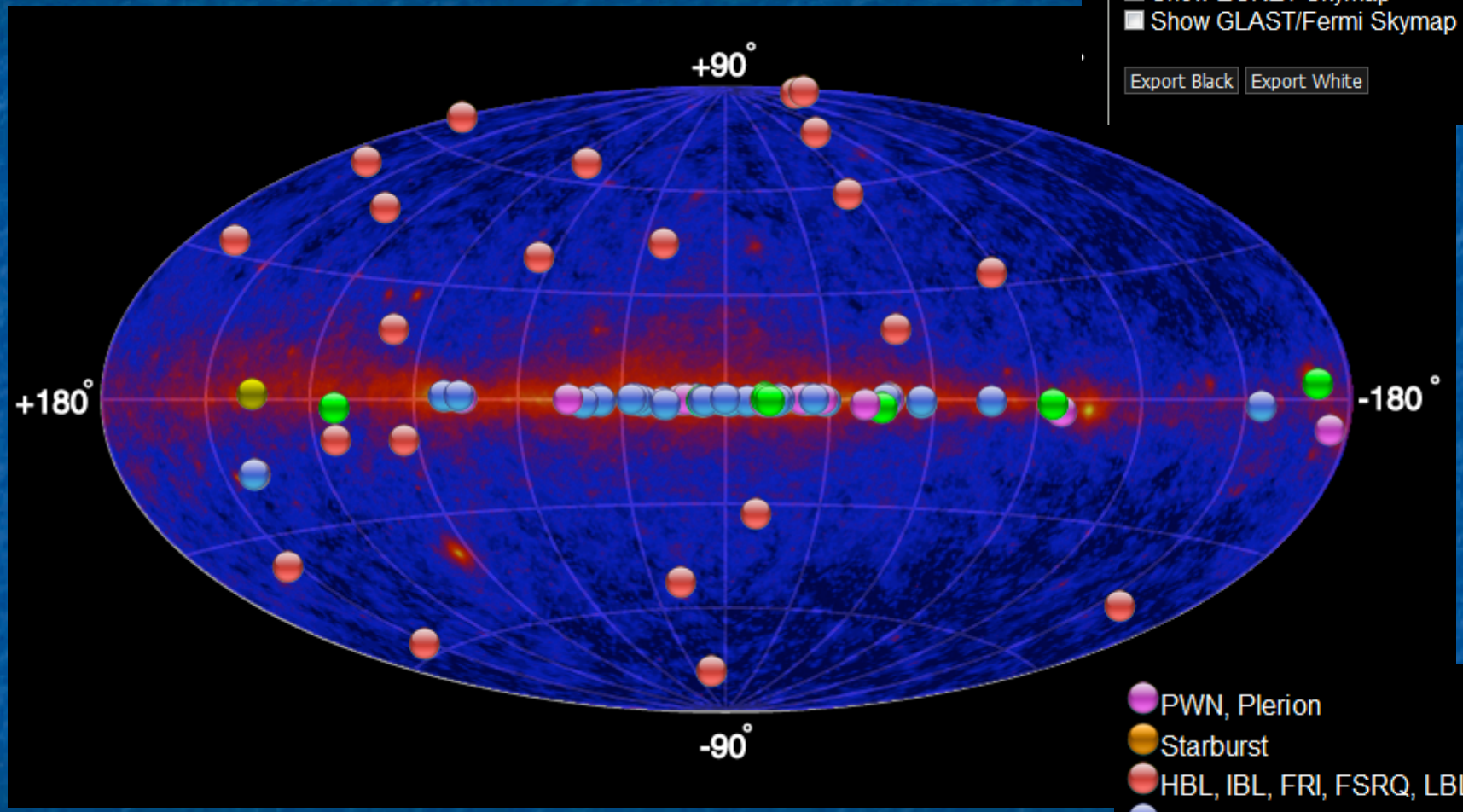


Table Control | Map Control | Tools | Legend

Zoom Gal Center
Show Vis. Overlay:
None

Show EGRET Skymap
Show GLAST/Fermi Skymap

Export Black | Export White

PWN, Plerion
Starburst
HBL, IBL, FRI, FSRQ, LBL
MQS, Cat. Var., UNID, Other, BIN, WR
Shell
DARK
XRB, PSR

Galactic Coordinates - Aitoff Projection
Fermi Skymap Underlay

The Map

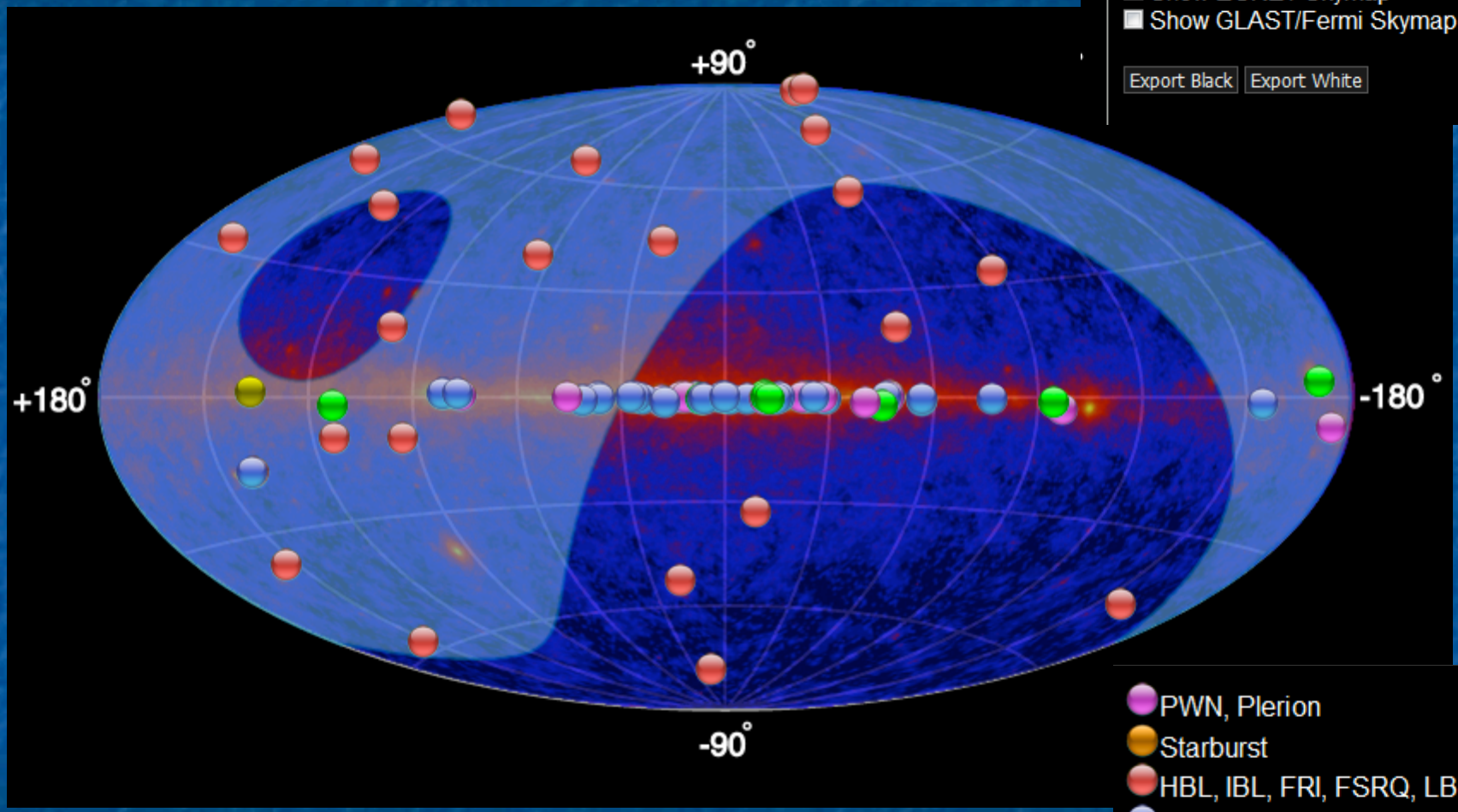


Table Control | Map Control | Tools | Legend

Zoom Gal Center
Show Vis. Overlay:
None

Show EGRET Skymap
Show GLAST/Fermi Skymap

Export Black | Export White

PWN, Plerion
Starburst
HBL, IBL, FRI, FSRQ, LBL
MQS, Cat. Var., UNID, Other, BIN, WR
Shell
DARK
XRB, PSR

Galactic Coordinates - Aitoff Projection
Fermi Skymap Underlay + VERITAS Visibility

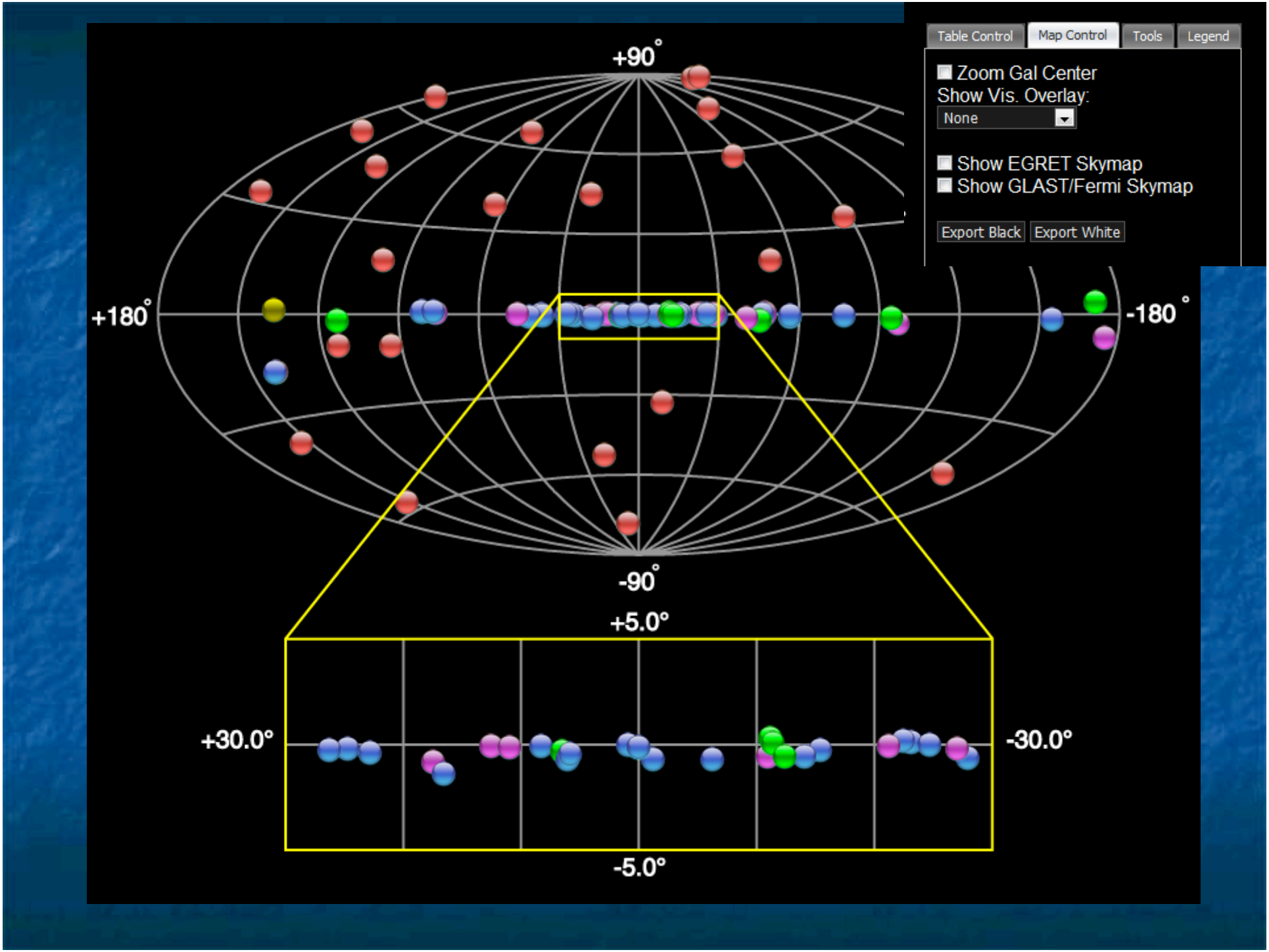


Table Control
Map Control
Tools
Legend
Zoom Gal Center
Show Vis. Overlay:
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Show EGRET Skymap
Show GLAST/Fermi Skymap
Export Black
Export White
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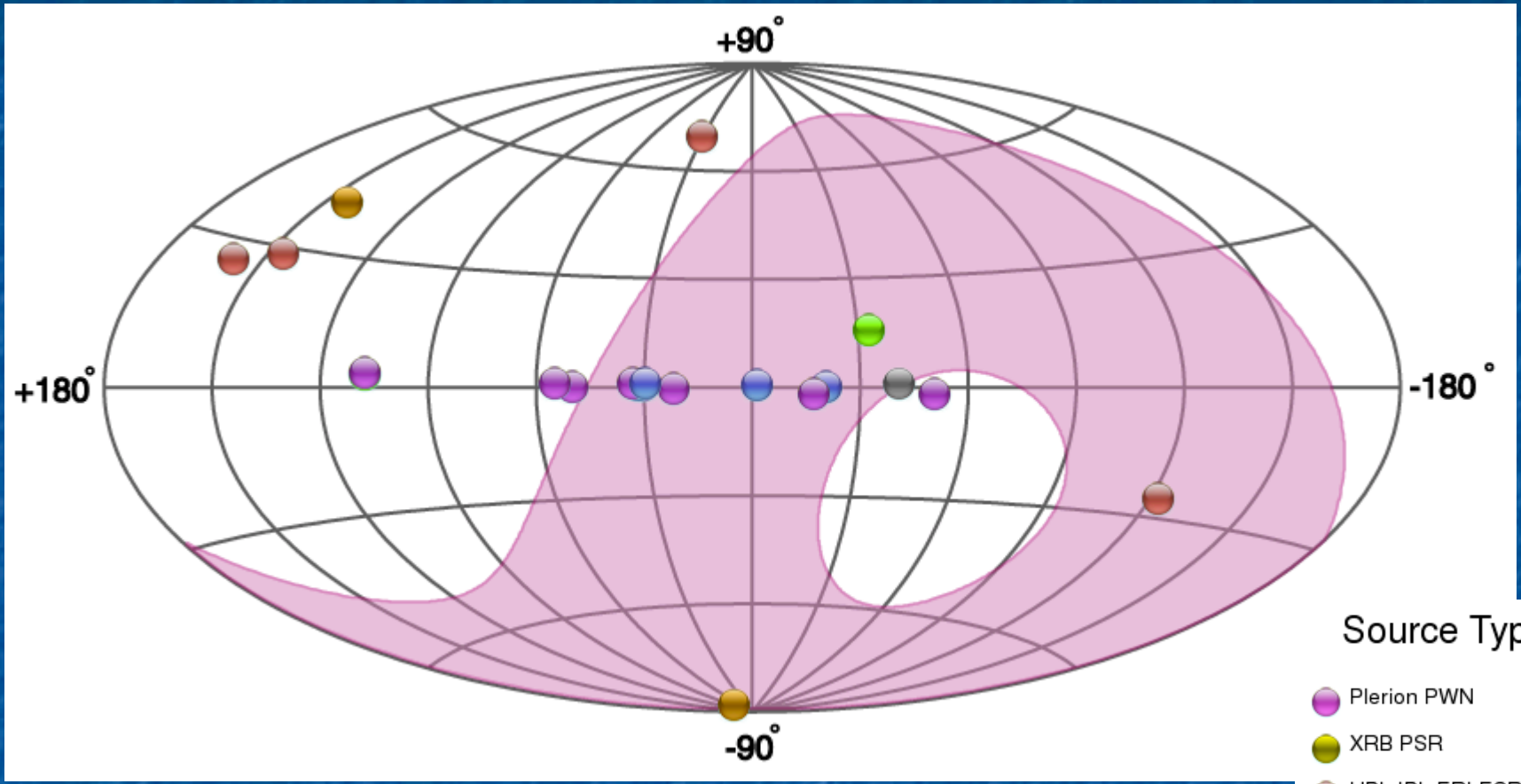
+5.0°
+30.0°
-30.0°
-5.0°

Export

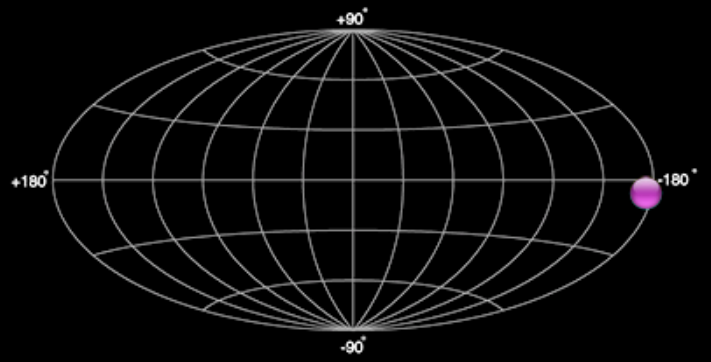

+90°
+180°
-180°
-90°
Source Types
Plerion PWN
XRB PSR
HBL IBL FRI FSRQ LBL
Shell
Starburst
DARK
MQS Cat. Var. UNID
Other BIN WR

Source Information

Back to Main Page

Crab SIMBAD

Canonical Name:	Crab
Catalog Name:	TeV J0534+220
Other Names:	G184.6–5.8, 3C144, SN1054
Source Type:	PWN
R.A.:	05 34 31.9 (hh mm ss)
Dec.:	+22 00 52 (dd mm ss)
Gal Long:	184.56 (deg)
Gal Lat:	-5.78 (deg)
Distance:	2 kpc
Flux:	1 (Crab Units)
Energy Threshold:	700 GeV
Spectral Index:	-2.5
Extended:	No
Discovery Date:	1989-07
Discovered By:	Whipple
Green's Catalog:	Link



Observation Date (UT) 14-9-2009

Observation Lat CANGAROO (-31.10)

Vis-Plot this Source! Vis-Plot Full Year

Seen by: Whipple, HEGRA, CAT, H.E.S.S., MAGIC, Milagro, Telescope Array, CANGAROO, TACTIC

- On particle acceleration and very high energy gamma-ray emission in Crab-like pulsars
  Osmanov, Z. and Rieger, F.M., ArXiv e-prints p (2009) [LINK]
- On the synchrotron emission mechanism in the recently detected VHE radiation from the Crab pulsar
  George, Machabeli and Zaza, Osmanov, p (2009) [LINK]
- The multicomponent model of the Crab Pulsar at energies above 25 GeV
  Campana, R. et al., ArXiv e-prints p (2009) [LINK]
- VHE Gamma-Ray Observation of the Crab Nebula and its Pulsar with the MAGIC Telescope
  Albert, J. et al., ApJ 674 p1037-1055 (2008) [LINK]
- Detection of pulsed gamma rays above 25 GeV from the Crab pulsar
  Aliu, : E., p (2008) [LINK]
- Results of observation of Cyg gamma-2, BL Lac, 3C66A, Mk 501, and the Crab nebula by the GT-48 gamma-ray telescope in 2006
  Neshpor, Y.I. et al., Bulletin Crimean Astrophysical Observatory 104 p141-144 (2008) [LINK]
- Multi-Tev Gamma-Ray Observation from the Crab Nebula Using the Tibet-III Air Shower Array Finely Tuned by the Cosmic-Ray Moon's Shadow
  Amenomori, M., ArXiv e-prints p (2008) [LINK]

Source Information

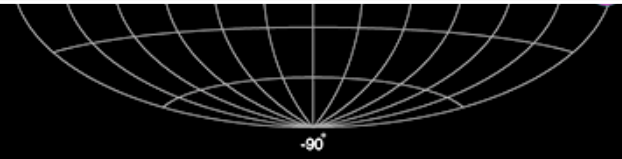
Back to Main Page

Crab SIMBAD

Canonical Name:	Crab
Catalog Name:	TeV J0534+220
Other Names:	G184.6–5.8, 3C144, SN1054
Source Type:	PWN
R.A.:	05 34 31.9 (hh mm ss)
Dec.:	+22 00 52 (dd mm ss)
Gal Long:	184.56 (deg)
Gal Lat:	-5.78 (deg)
Distance:	2 kpc
Flux:	1 (Crab Units)
Energy Threshold:	700 GeV
Spectral Index:	-2.5
Extended:	No
Discovery Date:	1989-07
Discovered By:	Whipple
Green's Catalog:	Link

Seen by: Whipple, HEGRA, CAT, H.E.S.S., MAGIC, Milagro, Telescope Array, CANGAROO, TACTIC

Crab SIMBAD
Canonical Name: Crab
Catalog Name: TeV J0534+220

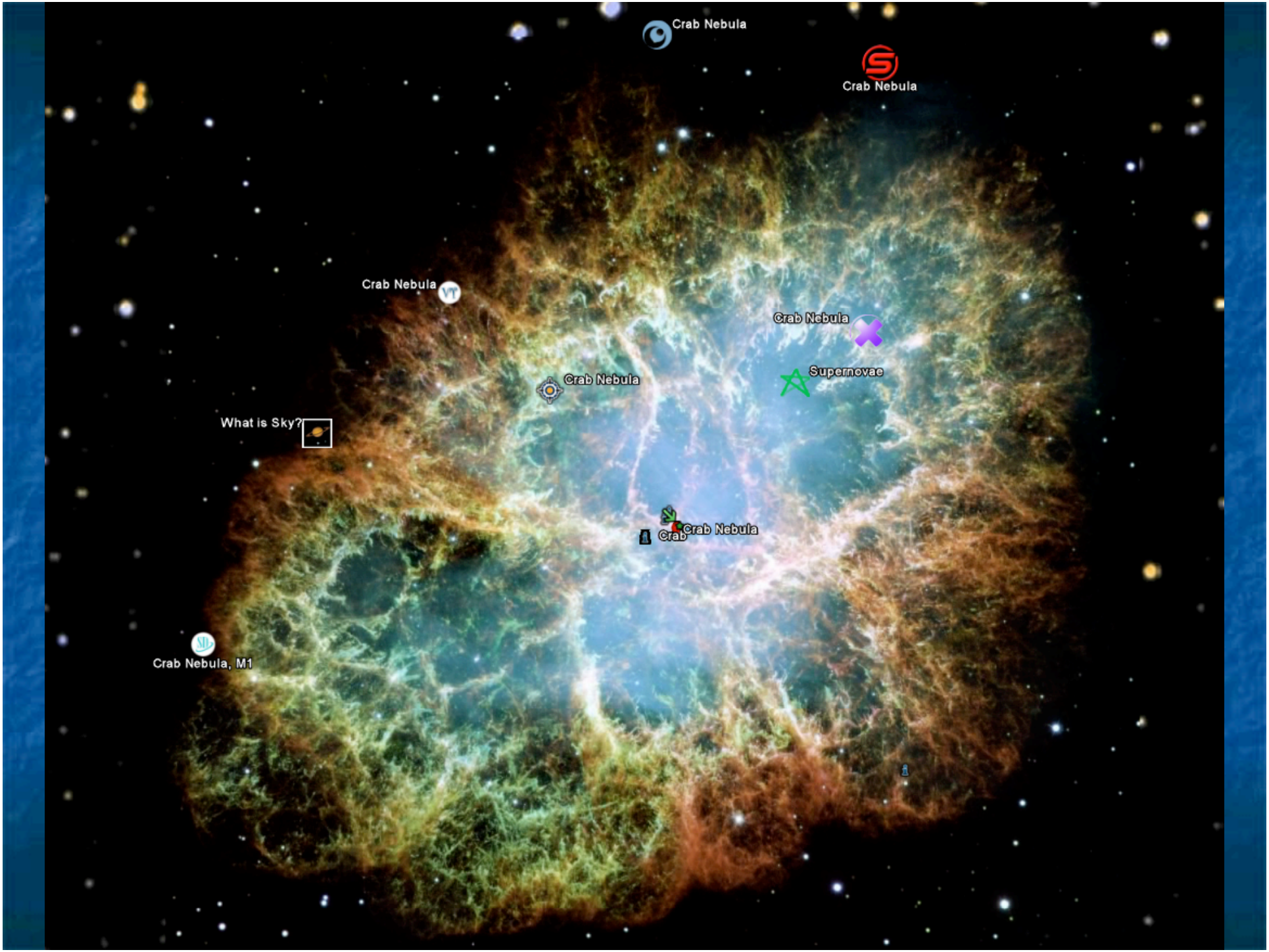


Observation Date (UT) 14-9-2009

Observation Lat CANGAROO (-31.10)

Vis-Plot this Source! Vis-Plot Full Year

- On particle acceleration and very high energy gamma-ray emission in Crab-like pulsars
  Osmanov, Z. and Rieger, F.M., ArXiv e-prints p (2009) [LINK]
- On the synchrotron emission mechanism in the recently detected VHE radiation from the Crab pulsar
  George, Machabeli and Zaza, Osmanov, p (2009) [LINK]
- The multicomponent model of the Crab Pulsar at energies above 25 GeV
  Campana, R. et al., ArXiv e-prints p (2009) [LINK]
- VHE Gamma-Ray Observation of the Crab Nebula and its Pulsar with the MAGIC Telescope
  Albert, J. et al., ApJ 674 p1037-1055 (2008) [LINK]
- Detection of pulsed gamma rays above 25 GeV from the Crab pulsar
  Aliu, : E., p (2008) [LINK]
- Results of observation of Cyg gamma-2, BL Lac, 3C66A, Mk 501, and the Crab nebula by the GT-48 gamma-ray telescope in 2006
  Neshpor, Y.I. et al., Bulletin Crimean Astrophysical Observatory 104 p141-144 (2008) [LINK]
- Multi-Tev Gamma-Ray Observation from the Crab Nebula Using the Tibet-III Air Shower Array Finely Tuned by the Cosmic-Ray Moon's Shadow
  Amenomori, M., ArXiv e-prints p (2008) [LINK]

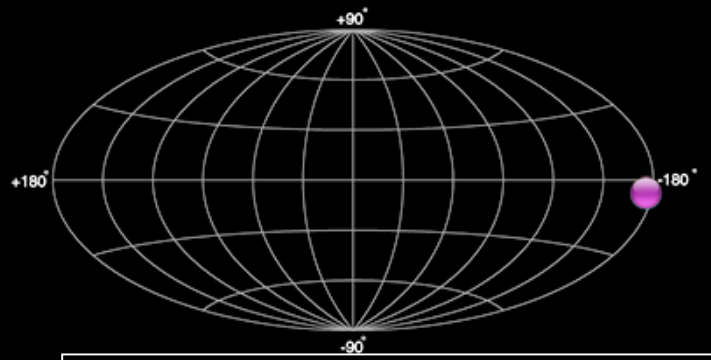

Crab Nebula
Crab Nebula
Crab Nebula
Crab Nebula
Crab Nebula
Supernovae
Crab Nebula
What is Sky?
Crab
Crab Nebula
Crab Nebula, M1

Source Information

Back to Main Page

Crab SIMBAD

Canonical Name:	Crab
Catalog Name:	TeV J0534+220
Other Names:	G184.6–5.8, 3C144, SN1054
Source Type:	PWN
R.A.:	05 34 31.9 (hh mm ss)
Dec.:	+22 00 52 (dd mm ss)
Gal Long:	184.56 (deg)
Gal Lat:	-5.78 (deg)
Distance:	2 kpc
Flux:	1 (Crab Units)
Energy Threshold:	700 GeV
Spectral Index:	-2.5
Extended:	No
Discovery Date:	1989-07
Discovered By:	Whipple
Green's Catalog:	Link



Observation Date (UT) | Observation Lat

14-9-2009 | CANGAROO (-31.10)

Vis-Plot this Source! | Vis-Plot Full Year

Seen by: Whipple, HEGRA, CAT, H.E.S.S., MAGIC, Milagro, Telescope Array, CANGAROO, TACTIC

- On particle acceleration and very high energy gamma-ray emission in Crab-like pulsars
  Osmanov, Z. and Rieger, F.M., ArXiv e-prints p (2009) [LINK]

Observation Date (UT) | Observation Lat

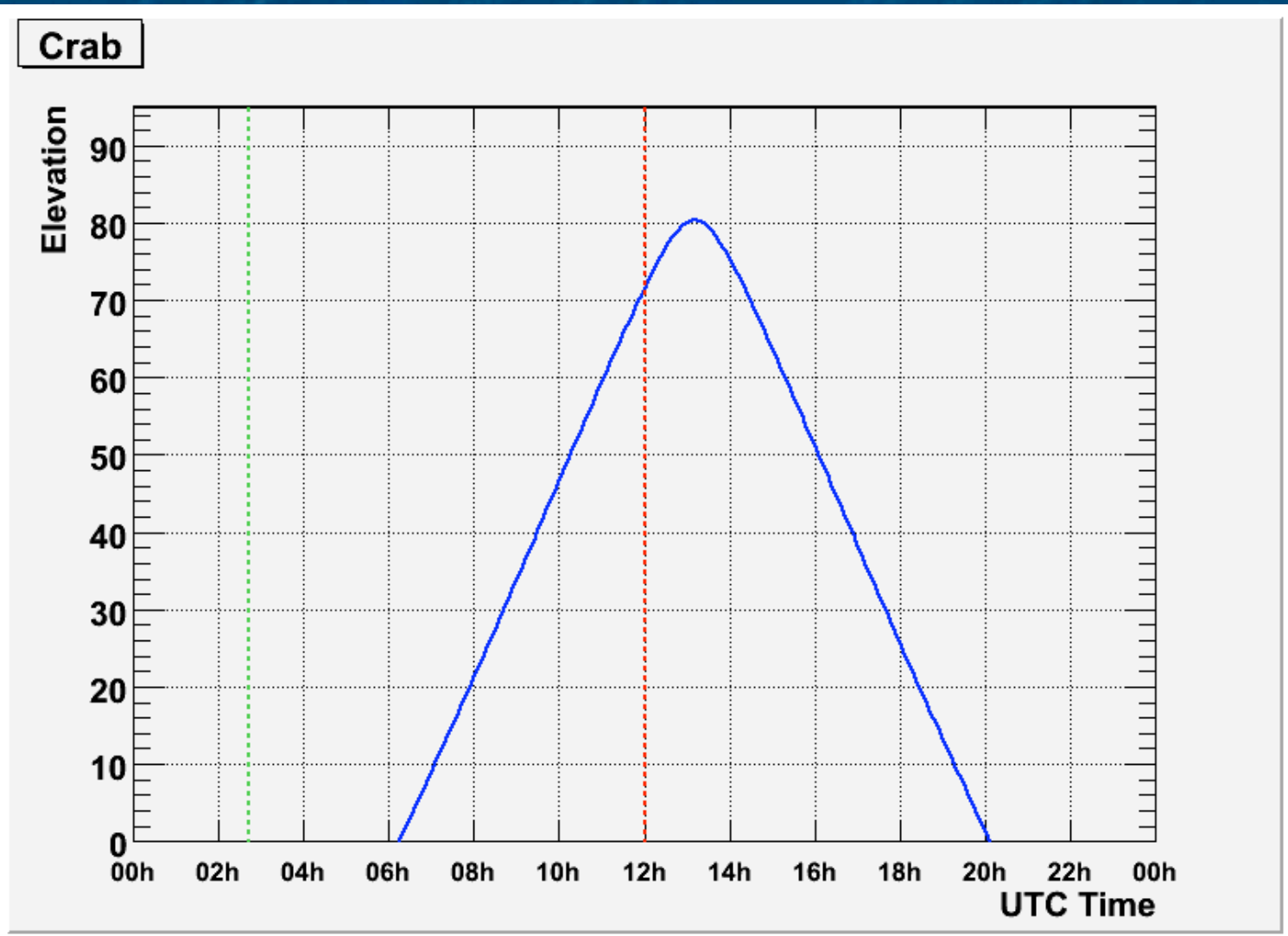
17-9-2009 | VERITAS (31.68)

Vis-Plot this Source! | Vis-Plot Full Year

elescope in 2006
Neshpor, Y.I. et al., Bulletin Crimean Astrophysical Observatory 104 p141-144 (2008) [LINK]

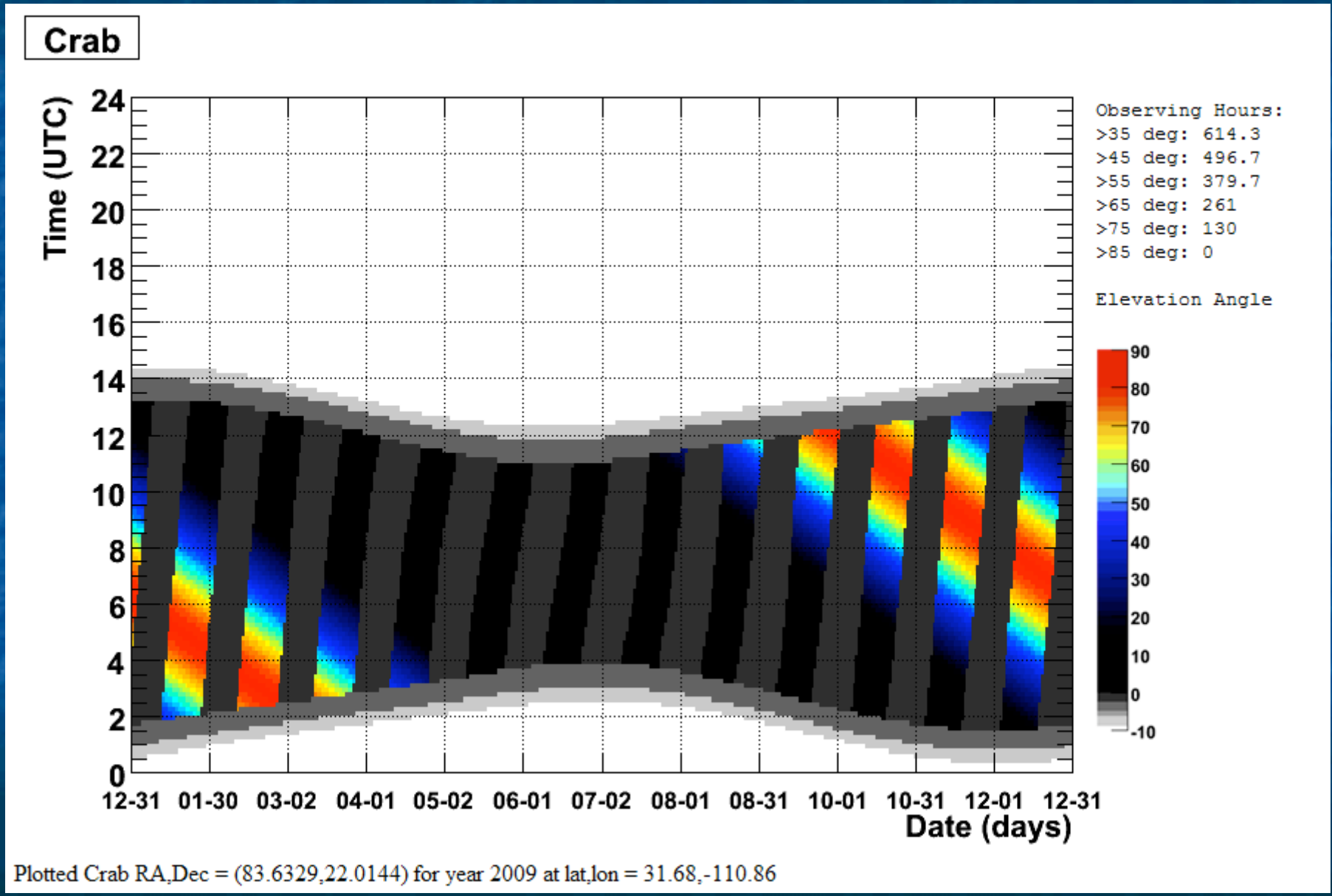
- Multi-Tev Gamma-Ray Observation from the Crab Nebula Using the Tibet-III Air Shower Array Finely Tuned by the Cosmic-Ray Moon's Shadow
  Amenomori, M., ArXiv e-prints p (2008) [LINK]

Visplot Output – Single Night

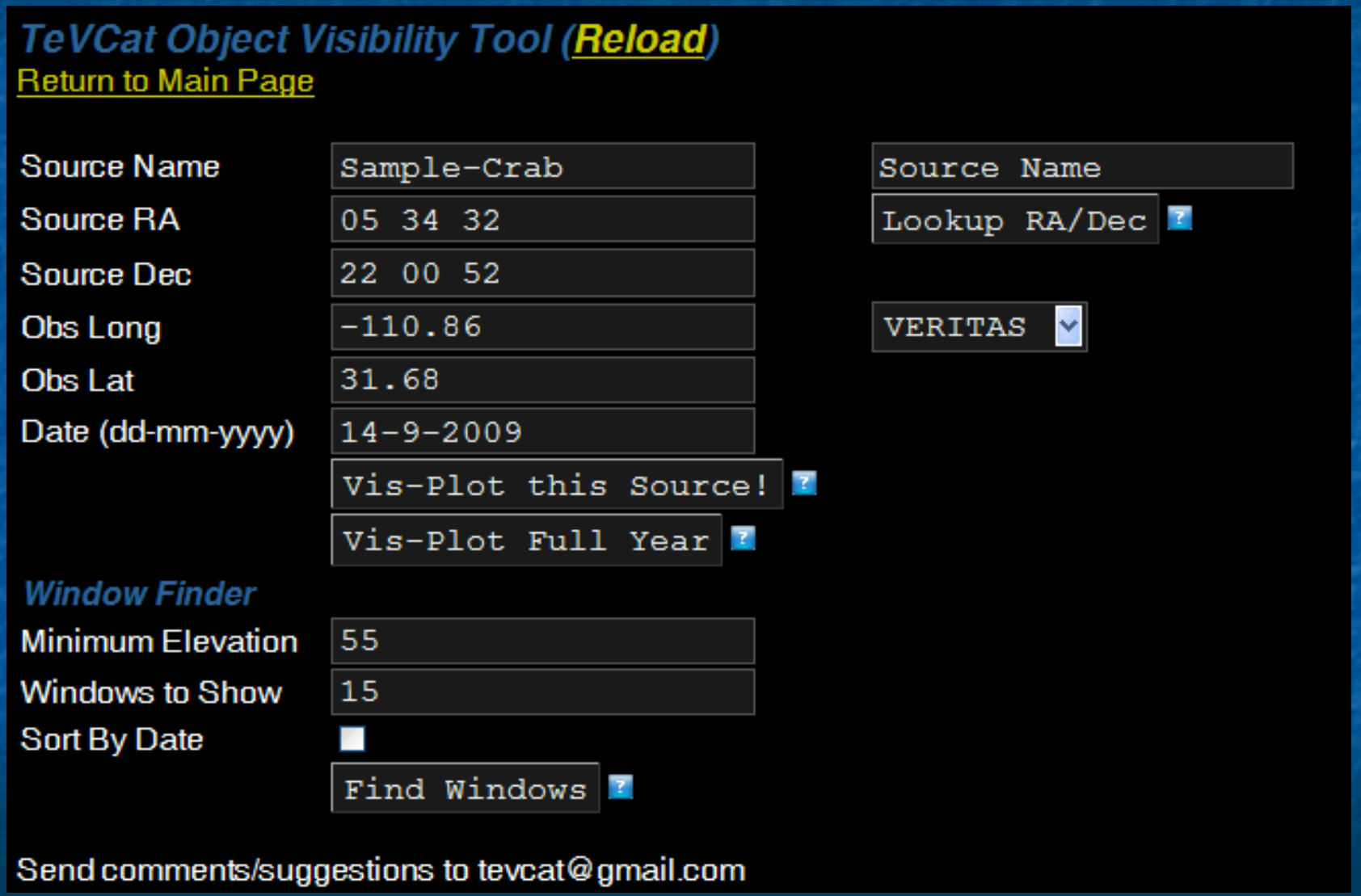


Plotted Crab RA,Dec = (83.6329,22.0144) for date (dd-mm-yy) 17-9-2009 (MJD= 55091) at lat,lon = 31.68,-110.86
Nominal Times (rough guesses) Start: 02:42, Stop : 11:59, dT ~ 09:17

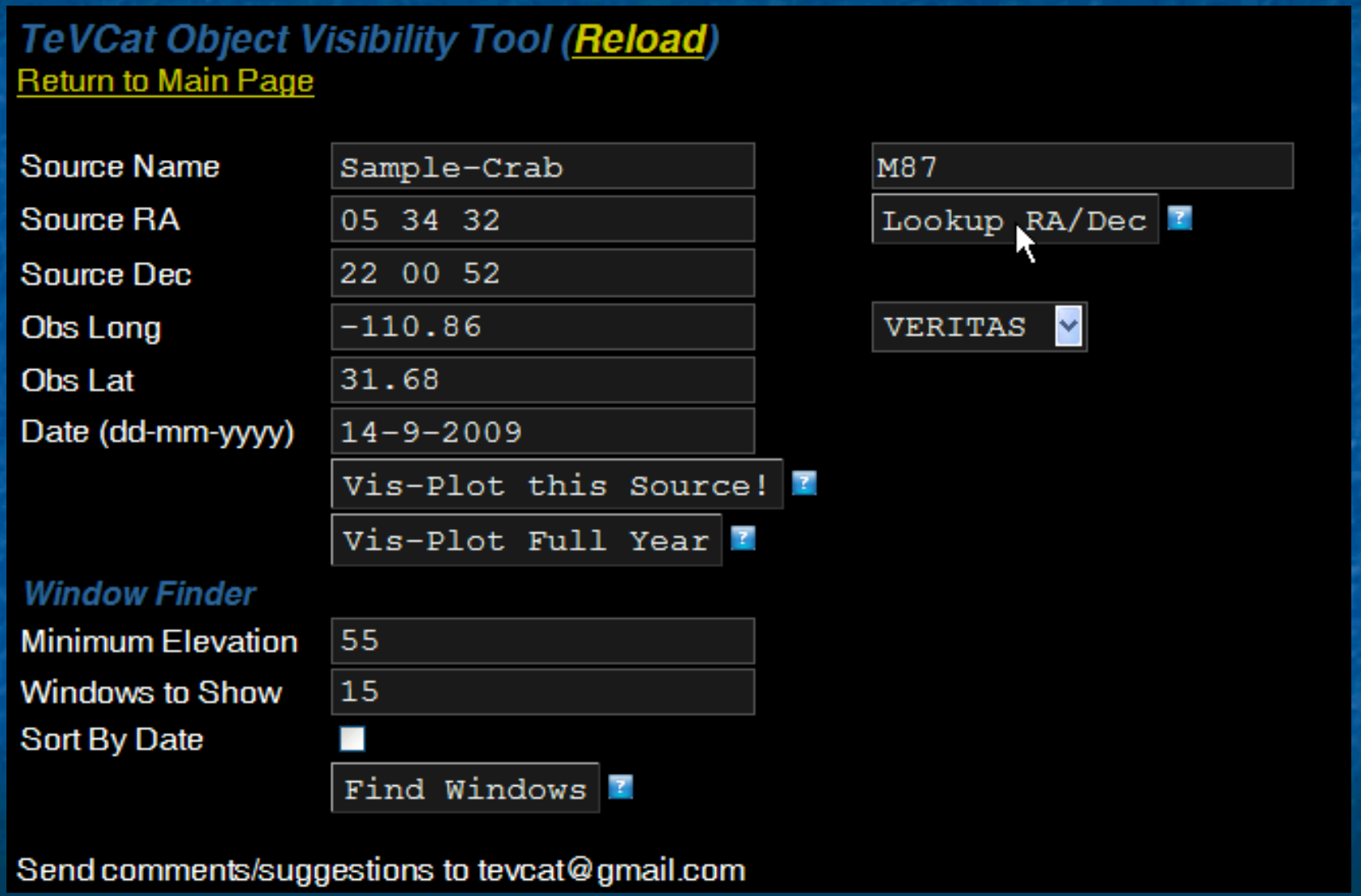
Visplot Output – Full Season



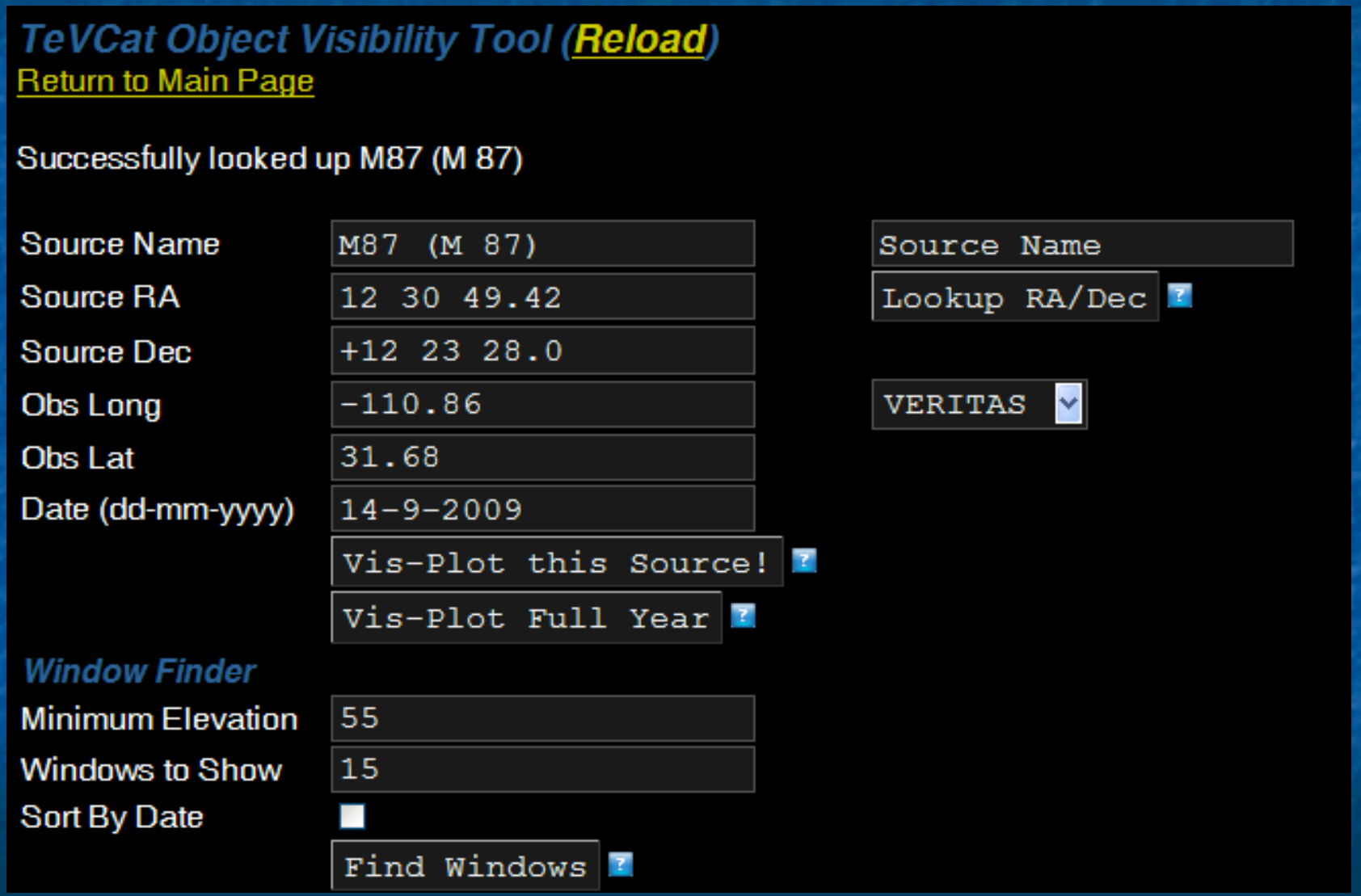
CustomVis


TeVCat Object Visibility Tool (Reload)
Return to Main Page
Source Name
Sample-Crab
Source Name
Source RA
05 34 32
Lookup RA/Dec
Source Dec
22 00 52
Obs Long
-110.86
VERITAS
Obs Lat
31.68
Date (dd-mm-yyyy)
14-9-2009
Vis-Plot this Source!
Vis-Plot Full Year
Window Finder
Minimum Elevation
55
Windows to Show
15
Sort By Date
Find Windows
Send comments/suggestions to tevcat@gmail.com

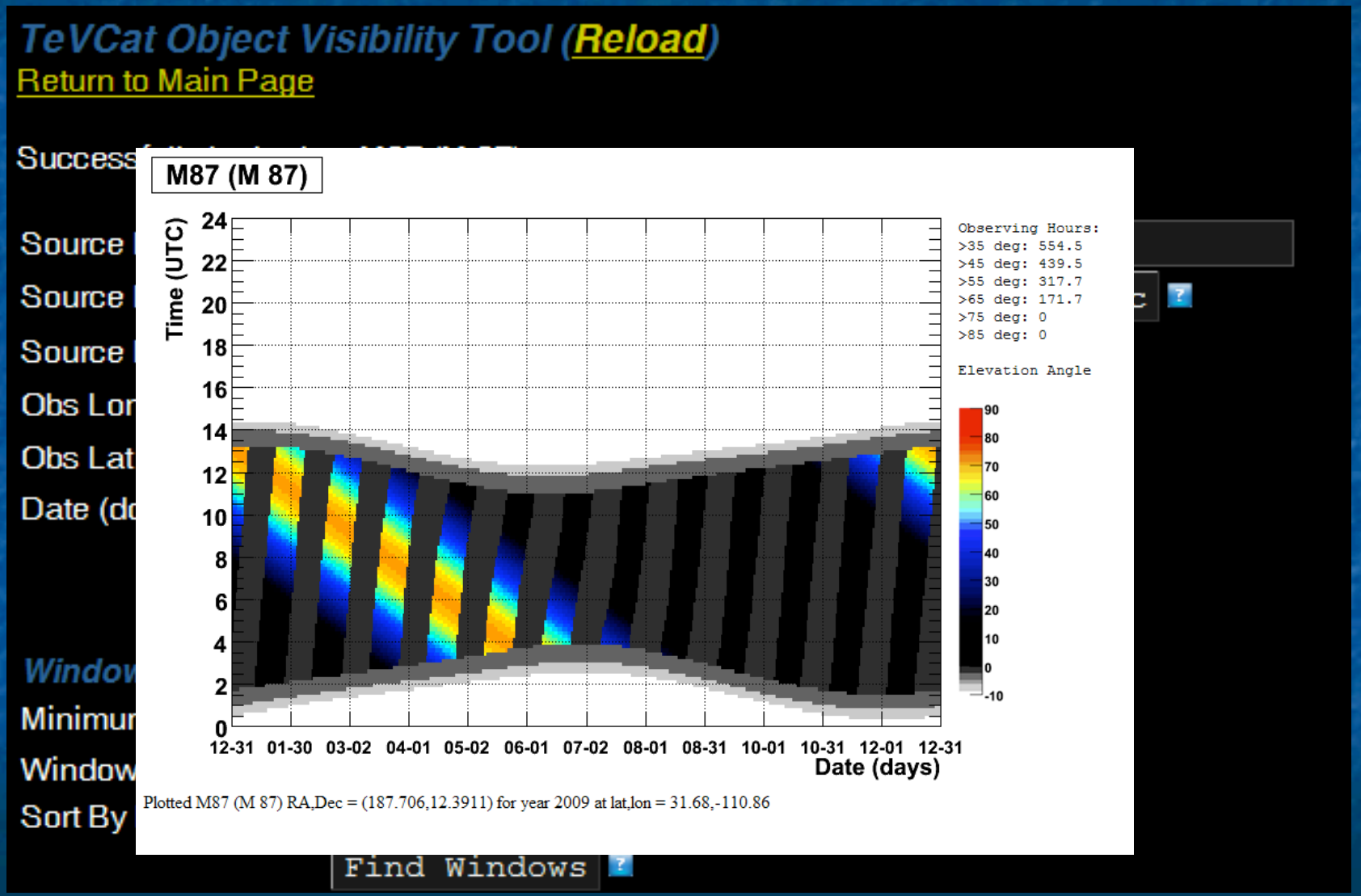
CustomVis


TeVCat Object Visibility Tool (Reload)
Return to Main Page
Source Name
Sample-Crab
M87
Source RA
05 34 32
Lookup RA/Dec
Source Dec
22 00 52
Obs Long
-110.86
VERITAS
Obs Lat
31.68
Date (dd-mm-yyyy)
14-9-2009
Vis-Plot this Source!
Vis-Plot Full Year
Window Finder
Minimum Elevation
55
Windows to Show
15
Sort By Date
Find Windows
Send comments/suggestions to tevcat@gmail.com

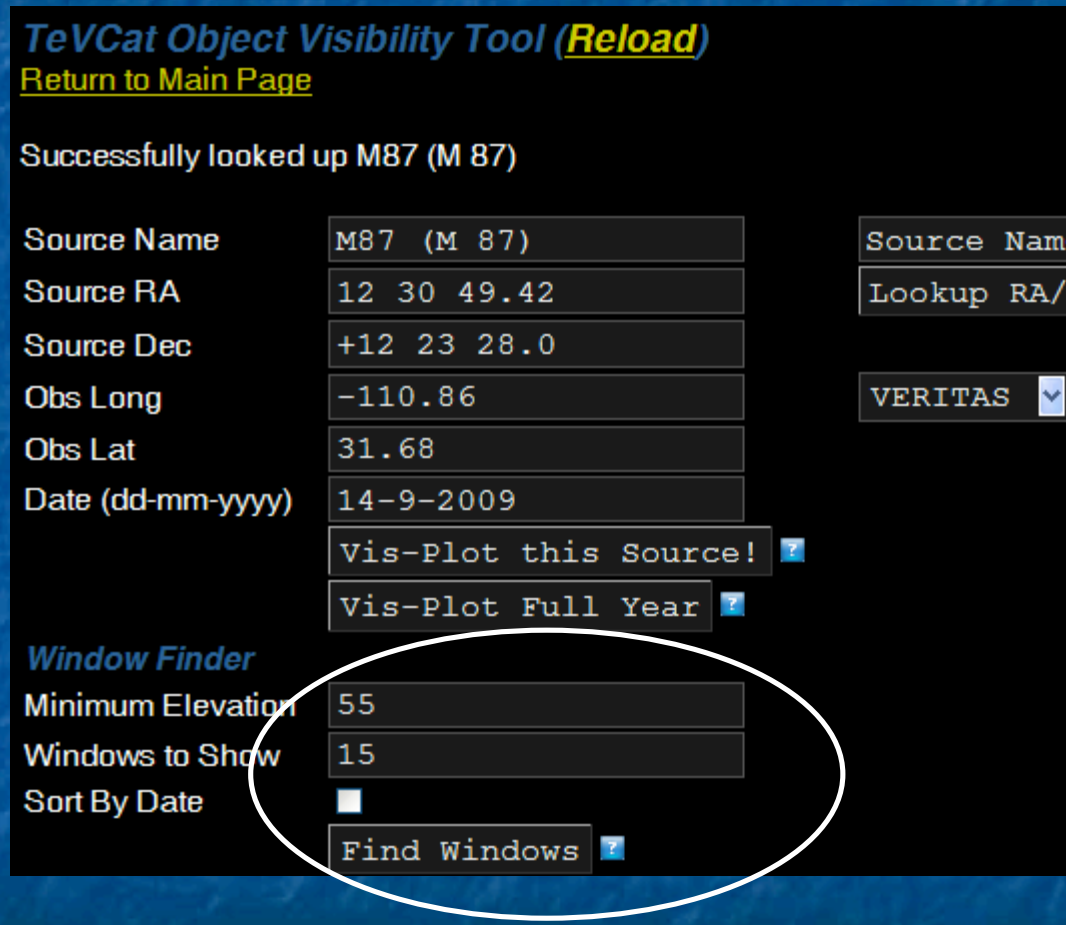
CustomVis


TeVCat Object Visibility Tool (Reload)
Return to Main Page
Successfully looked up M87 (M 87)
Source Name
M87 (M 87)
Source RA
12 30 49.42
Source Dec
+12 23 28.0
Obs Long
-110.86
Obs Lat
31.68
Date (dd-mm-yyyy)
14-9-2009
Vis-Plot this Source!
Vis-Plot Full Year
Window Finder
Minimum Elevation
55
Windows to Show
15
Sort By Date
Find Windows
Source Name
Lookup RA/Dec
VERITAS

CustomVis


TeVCat Object Visibility Tool (Reload)
Return to Main Page
Success
Source
Source
Source
Obs Lon
Obs Lat
Date (dd
Windo
Minimur
Windo
Sort By
M87 (M 87)
Time (UTC)
24
22
20
18
16
14
12
10
8
6
4
2
0
12-31 01-30 03-02 04-01 05-02 06-01 07-02 08-01 08-31 10-01 10-31 12-01 12-31
Date (days)
Observing Hours:
>35 deg: 554.5
>45 deg: 439.5
>55 deg: 317.7
>65 deg: 171.7
>75 deg: 0
>85 deg: 0
Elevation Angle
90
80
70
60
50
40
30
20
10
0
-10
Plotted M87 (M 87) RA,Dec = (187.706,12.3911) for year 2009 at lat,lon = 31.68,-110.86
Find Windows

CustomVis



Top Observation Windows - By Date

01 - 4.17 hrs on 2009-02-03 at 09:00 (UT)
02 - 4.17 hrs on 2009-02-21 at 07:50 (UT)
03 - 4.33 hrs on 2009-02-22 at 07:40 (UT)
04 - 4.17 hrs on 2009-02-23 at 07:40 (UT)
05 - 4.33 hrs on 2009-02-24 at 07:29 (UT)
06 - 4.17 hrs on 2009-02-25 at 07:29 (UT)
07 - 4.17 hrs on 2009-02-26 at 07:29 (UT)
08 - 4.33 hrs on 2009-02-27 at 07:19 (UT)
09 - 4.17 hrs on 2009-02-28 at 07:19 (UT)
10 - 4.17 hrs on 2009-03-01 at 07:19 (UT)
11 - 4.17 hrs on 2009-03-02 at 07:09 (UT)
12 - 4.17 hrs on 2009-03-21 at 06:00 (UT)
13 - 4.33 hrs on 2009-03-22 at 05:49 (UT)
14 - 4.17 hrs on 2009-03-23 at 05:49 (UT)
15 - 4.33 hrs on 2009-03-24 at 05:39 (UT)
16 - 4.17 hrs on 2009-03-25 at 05:39 (UT)
17 - 4.17 hrs on 2009-03-26 at 05:39 (UT)
18 - 4.33 hrs on 2009-03-27 at 05:29 (UT)
19 - 4.17 hrs on 2009-03-28 at 05:29 (UT)
20 - 4.17 hrs on 2009-03-29 at 05:29 (UT)
21 - 4.17 hrs on 2009-04-17 at 04:09 (UT)
22 - 4.17 hrs on 2009-04-18 at 04:09 (UT)
23 - 4.33 hrs on 2009-04-19 at 03:59 (UT)
24 - 4.17 hrs on 2009-04-20 at 03:59 (UT)
25 - 4.33 hrs on 2009-04-21 at 03:49 (UT)
26 - 4.17 hrs on 2009-04-22 at 03:49 (UT)
27 - 4.17 hrs on 2009-04-23 at 03:49 (UT)
28 - 4.33 hrs on 2009-04-24 at 03:40 (UT)
29 - 4.17 hrs on 2009-04-25 at 03:40 (UT)
30 - 4.17 hrs on 2009-04-26 at 03:40 (UT)
I counted 317.00 hrs of total observing time this year

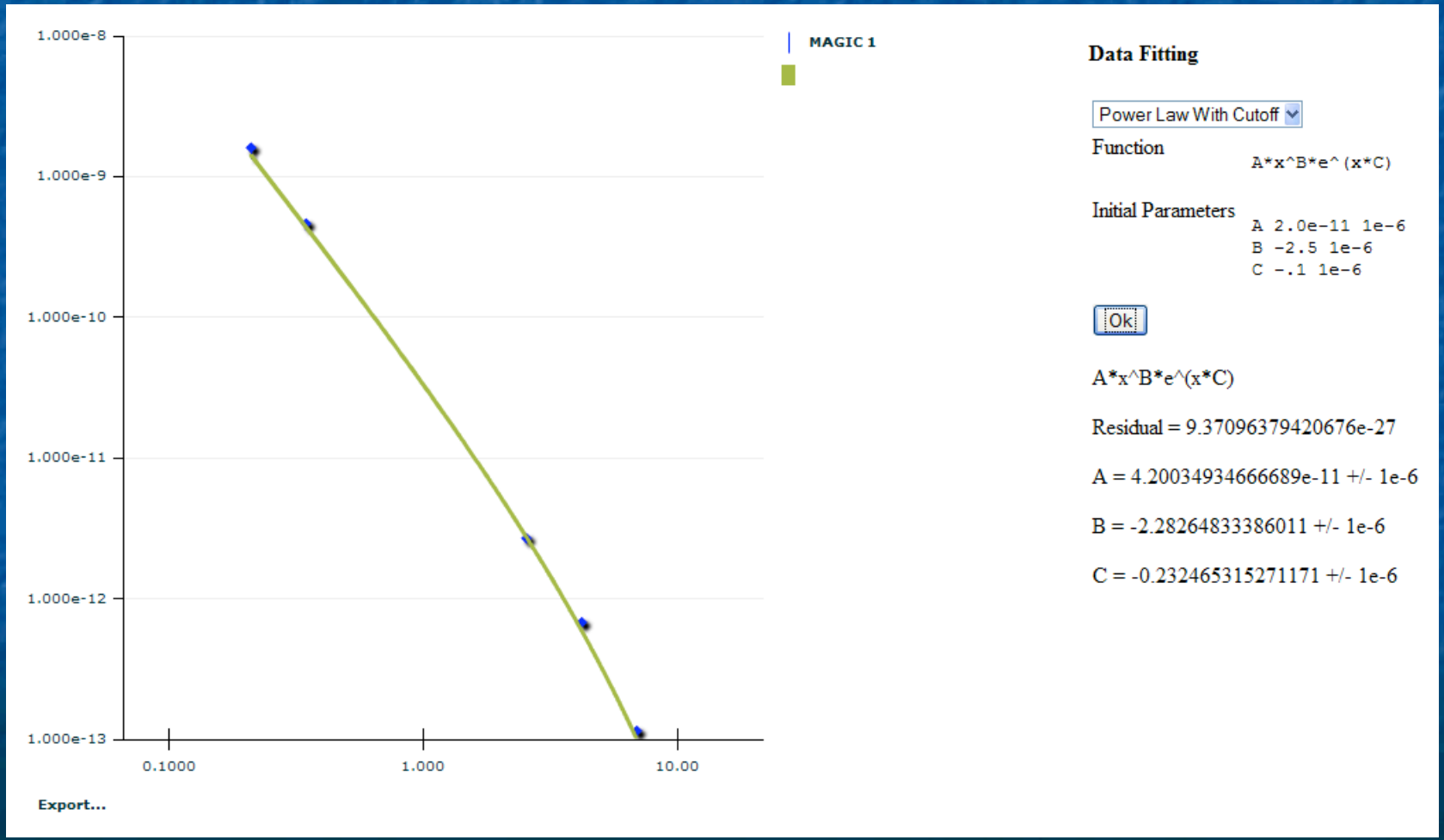
In the works…

- "My TeVCat"
  - Users to add own private sources
    - Primarily for observation planning
  - Many requests for this

- Spectrum Repository
  - World ensemble of spectral data points
    - Export to fits, root, png, etc

In the works…

- Spectrum Repository



Future…

- What else?
  - More functionality
  - More connections to GeV