

Statistics

As of 2025/01/27, the database contains

- 383 records of a supernova remnant (SNR): the 295 objects of Green's radio catalogue as of June 2017, plus 99 objects confirmed or candidates [see list at the end]: several filled-centre remnants, and also shells or composites that were added in the light of recent observations. 137 records mention a neutron star (NS) or NS candidate, 114 being identified as a pulsar (PSR), including 6 anomalous X-ray pulsars (AXPs). There are also 5 soft gamma-ray repeaters (SGRs), and a total of 13 magnetar candidates. The list also includes 15 central compact objects (CCOs) or CCO candidates. A pulsar wind nebula (PWN) is detected or suggested in 106 cases (which are not a subset of the population of SNRs having a NS: only 85 SNRs are associated with both a PWN and a NS/PSR). Interaction of the shell with a molecular cloud is reported in 80 cases, with varying levels of confidence.
- 14 records of the sighting of a supernova, that are referred to by 14 SNRs records (in a non-bijective way, and with varying levels of confidence).
- 1929 records of high-energy observations made with 40+ observatories, as shown in Table 1. Note that 443 of these are actually non-detections, and that the emission might not be coming from the SNR, as seen in Table 2.
- 3305 references in the form of SAO/NASA ADS bibcodes, plus hundreds of other URLs.

The catalogue can be browsed online at snrcat.physics.umanitoba.ca/

For details, see the companion paper:

Ferrand & Safi-Harb 2012, AdSpR, 49, 9, 1313-1319.

domain		instrument	records by instrument	records by domain	
X-rays	keV	ASCA	127 + 4 = 131	957 + 52 = 1009	
		BeppoSAX	23 + 0 = 23		
		Chandra	155 + 6 = 161		
		Einstein	56 + 7 = 63		
		SRG/eROSITA	11 + 0 = 11		
		EXOSAT	20 + 0 = 20		
		Ginga	19 + 0 = 19		
		HEAO-1	19 + 2 = 21		
		Hitomi	2 + 0 = 2		
		INTEGRAL	27 + 7 = 34		
		IXPE	10 + 0 = 10		
		MAXI	24 + 0 = 24		
		NICER	12 + 0 = 12		
		NuSTAR	40 + 0 = 40		
		CGRO/OSSE	5 + 0 = 5		
		ROSAT	99 + 11 = 110		
		RXTE	29 + 5 = 34		
		Suzaku	81 + 2 = 83		
		SWIFT	30 + 2 = 32		
Uhuru	10 + 0 = 10				
XMM	143 + 6 = 149				
[X]	15 + 0 = 15				
γ -rays	MeV	CGRO/COMPTEL	4 + 0 = 4	8 + 5 = 13	529 + 391 = 920
		INTEGRAL	2 + 5 = 7		
		[gamma_MeV]	2 + 0 = 2		
	GeV	AGILE	47 + 10 = 57	282 + 155 = 437	
		COS-B	7 + 0 = 7		
		CGRO/EGRET	29 + 20 = 49		
		Fermi	196 + 125 = 321		
		SAS-2	3 + 0 = 3		
	TeV	ARGO-YBJ	7 + 0 = 7	239 + 231 = 470	
		CANGAROO	8 + 8 = 16		
		HAWC	43 + 13 = 56		
		HEGRA	4 + 8 = 12		
		H.E.S.S.	100 + 161 = 261		
		LHAASO	13 + 0 = 13		
		MAGIC	16 + 12 = 28		
Milagro		10 + 0 = 10			
ShALON		8 + 0 = 8			
Tibet AS- γ		6 + 10 = 16			
VERITAS		18 + 9 = 27			
Whipple	3 + 9 = 12				
[gamma_TeV]	3 + 1 = 4				
ALL	TOTAL	1486 + 443 = 1929	1486 + 443 = 1929		

Table 1: Number of observational records in the database, by energy domain and by instrument (some experiments with few records are grouped under [X] and [gamma_MeV/TeV]). Numbers are the sum of successful observations and non-detections.

	ejecta / shock	compact object / wind	other (unrelated)	unknown
X-rays	$383 + 92 = 475$	$382 + 131 = 513$	$29 + 18 = 47$	87
γ -rays	$63 + 170 = 233$	$121 + 119 = 240$	$0 + 12 = 12$	125
TOTAL	$446 + 262 = 708$	$503 + 250 = 753$	$29 + 30 = 59$	212

Table 2: Nature of the high-energy emission source for all observational records in the database. For the first three columns, numbers are the sum of confident and uncertain identifications. Note that the four columns are not exclusive.

Objects added, corrected or split

2012/02/01 (public release)

the 274 objects from Green's 2009 list plus

- G000.1-00.1 for PWN G0.13-0.11
- G005.7-00.1 (close to W28)
- G007.5-01.7 with PWN G7.4-2.0 = Taz
- G010.9-45.4 for PWN G10.93-45.44
- G018.0-00.7 for PWN G18.00-0.69 = Turkey
- G018.5-00.4 for PWN = Eel
- G025.5+00.0 with PWN
- G034.0+20.3 for PWN G34.01+20.27
- G035.6-00.4
- G047.4-03.9 for PWN G47.38-3.88
- G059.2-04.7 for PWN G59.20-4.70 = Black

Widow

- G075.2+00.1 for PWN G75.23+0.12 =

Dragonfly

- G107.5-01.5
- G108.6+06.8 = PWN = Guitar
- G148.1+00.8 = PWN = Mushroom
- G189.6+03.3 (overlaps IC443)
- G195.1+04.3 = PWN (Geminga)
- G230.4-01.4 for PWN G230.39-1.42
- G287.4+00.6 for PWN G287.42+0.58 = Puppy
- G304.1-00.2 for PWN G304.10-0.24
- G309.9-02.5 for PWN G309.92-2.51
- G310.6-01.6
- G313.3+00.1 for PWN G313.32+0.13 = Rabbit
- G313.6+00.3 for PWN G313.54+0.23 =

Kookaburra

- G320.0-00.6 for PWN G319.97-0.62
- G332.5-00.3 for PWN G332.50-0.28
- G348.9-00.4 for PWN G348.95-0.43
- G359.2-00.8 for PWN G359.23-0.82 = Mouse

2012/03/08

- G308.4-01.4 or G308.3-01.4

2012/08/04

- G011.1+00.1 = PWN G11.09+0.08 (moved from SNR G011.2-00.3)
- G064.5+0.9
- G080.2+01.0 = PWN
- G162.8-16.0 = PWN
- G313.5+00.3 (renamed from G313.6+00.3 to be consistent with PWN G313.54+0.23 = Kookaburra)
- G336.4+00.2 = PWN
- G344.7+00.1 for PWN G344.74+0.12 (moved from SNR G344.7-00.1)

2012/08/30

- G319.9-00.7 (corrected from G320.0-00.6)
- G296.7-00.9

2013/03/15

- G152.4-02.1
- G190.9-02.2
- G306.3-00.9

2013/04/15

- G178.2-04.2
- G025.1-02.3

2013/12/13

- G276.5+19.0 = Antlia
- G321.4-00.5 = Circinus X-1

2014/03/05

- G038.7-01.4

2014/07/24

- G029.4+00.1
- G038.7-01.3 (corrected from G038.7-01.4)
- G141.2+05.0
- G267.0-01.0 = PWN (moved from overlapping SNR G266.2-01.2 = Vela Jr)
- G284.0-01.8 = PWN (moved from nearby SNR G284.3-01.8 = MSH 10-53)
- G309.8-02.6 = SNR candidate instead of G309.9-02.5 for PWN
- G322.1+00.0 (corrected from G321.4-00.5)

2014/09/03 (Green's update)

- G016.8-01.1 removed
- G021.6-00.8
- G041.5+00.4
- G042.0-00.1
- G065.8-00.5
- G066.0-00.0
- G067.6+00.9
- G067.8+00.5
- G159.6+07.3
- G213.0-00.6

→

2015/01/21

- G108.5+11.0
- G128.5+02.6
- G149.5+03.2
- G150.3+04.5
- G150.8+03.8
- G151.2+02.9
- G160.1-01.1
- G333.9+00.0
- G354.4+00.0

2015/02/18

- G269.7+00.0
- G291.0+00.1
- G296.6-00.4
- G299.3-01.5
- G310.7-05.4
- G310.9-00.3
- G321.3-03.9
- G322.7+00.1
- G322.9-00.0
- G323.7-01.0
- G324.1+00.0
- G325.0-00.3
- G330.7+00.1
- G334.0-00.8
- G336.7-00.3
- G336.9-00.5
- G345.1-00.2
- G345.2+00.2
- G346.2-01.0
- G348.9+01.1
- G351.0-05.4
- G354.1+00.3

2015/04/15

- G006.4+04.9 = PWN
- G021.9-00.1 = PWN G21.88-0.10
- G023.5+00.1 = PWN
- G025.2+00.3 = G25.25+0.28
corrected from G25.5+0.0
(contains PWNe G25.24-0.19 and G25.21-0.02)
- G026.6-00.1 = PWN
- G032.6+00.5 = PWN G32.64+0.53
- G036.0+00.1 = PWN G36.01+0.06
- G044.5-00.2 = PWN G44.48-0.17
- G172.8+01.5
- G190.2+01.1
- G284.2-00.4 = PWN G284.19-0.39
- G285.1-00.5 = PWN G285.06-0.5
- G317.9-01.8 = PWN G317.89-1.79
- G323.9+00.0 = PWN G323.89+0.03
- G337.5-00.1 = PWN
- G350.2-00.8 = PWN
- G358.3+00.2 = PWN G358.29+0.24
- G358.6-01.0 = PWN G358.55-0.96
- G359.9-00.0 = PWN G359.95-0.04

2015/06/04

- reverted to G313.6+00.3 for PWN
G313.54+0.23 = Kookaburra, to be consistent
with literature even though larger region

2016/02/26

- G201.1+08.3 = PWN candidate

2016/12/16

- G181.1+09.5
- G331.5-00.6 for candidate HESS J1614-518

2017/07/21

- G053.4+00.0
- G070.0-21.5