Short GRBs observed by Swift and their probabilities to be non-collapsars.

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We show a table with the short GRBs selected by the criterion $T_{90} < 2$ sec[1], that were detected by Swift, Integral and HETE up to Nov. 2011. The table is constructed as follow:

- Column 1 shows the name of the GRB.
- Column 2 shows the duration of the GRB, approximated by its T_{90} in sec.
- Column 3 shows the powerlaw index that is fitted to the GRB spectrum of **Swift** GRBs, assuming a single powerlaw. The data is taken from the Swift site[2].
- Column 4 shows the probability that the GRB is a non-collapsar. For those GRBs with spectra that are fitted by a single powerlaw, we consider both the durations and the spectra information. For those GRBs with spectra that are fitted by a powerlaw plus an exponential cutoff or if they were detected by Integral or HETE, we consider **only the duration** of the GRBs in our analysis, since we don't have enough statistics to consider the spectral information as well (see Bromberg et al. 2013, for further details).
- Column 5 shows the redshift of the GRB, if one is detected.
- Column 6 has the references to the redshift information.

[1]We also added here longer GRBs with soft extended emission and GRB 060505 which has a duration of 4 sec, however it is considered by some to be have a non collapsar origin.

[2]http://swift.gsfc.nasa.gov/archive/grb_table/

GRB	$T_{90}[s]$	PL	f_{NC} [a]	z	Ref
050202	0.270	1.44 ± 0.32	$0.71^{+0.27}_{-0.23}$		
050509B	0.073	1.57 ± 0.38	$0.87^{+0.04}_{-0.16}$	0.225	1
050709[b]	0.07		$0.92^{+0.02}_{-0.03}$	0.161	2
050724	$3(96)^{\dagger}$			0.257	3
050813	0.450	1.28 ± 0.37	$0.57^{+0.39}_{-0.24}$	0.722^{*}	4
050906	0.258	2.46 ± 0.43	$0.49^{+0.25}_{-0.20}$		
050925	0.070	....[d]....	$0.92^{+0.02}_{-0.03}$		
051105A	0.093	1.22 ± 0.30	$0.85^{+0.14}_{-0.17}$		
051210	1.300	1.06 ± 0.28	$0.82^{+0.10}_{-0.61}$		
051221A	1.400	1.39 ± 0.06	$0.18^{+0.08}_{-0.11}$	0.546	5
060121[b]	1.97		$0.17^{+0.14}_{-0.15}$	$1.7 \leqslant z \leqslant 4.5$	6
060313	0.740	0.70 ± 0.07	$0.92^{+0.05}_{-0.08}$		
060502B	0.131	0.98 ± 0.19	$0.99^{+0.01}_{-0.16}$	0.287	7
060505	4.000	1.29 ± 0.28	$0.03^{+0.29}_{-0.02}$	0.089	8
060614	$6(108)^{\dagger}$			0.125	9
060801	0.490	0.47 ± 0.24	$0.95^{+0.03}_{-0.05}$	1.131^{*}	10
061006	$0.5(123)^{\dagger}$			0.438	11
061201	0.760	0.81 ± 0.15	$0.92^{+0.05}_{-0.08}$	0.11 / 0.087^{*}	12
061210	$0.192(85)^{\dagger}$			0.410^{*}	13
061217	0.210	0.86 ± 0.30	$0.98^{+0.01}_{-0.23}$	0.827	14
070209	0.090	1.00 ± 0.38	$0.99^{+0.01}_{-0.13}$		
070406	1.200	1.38 ± 0.60	$0.23^{+0.61}_{-0.13}$		
070429B	0.470	1.72 ± 0.23	$0.32^{+0.26}_{-0.15}$	0.904	15
070707[c]	1.1		$0.84^{+0.02}_{-0.03}$		
070714A	2.000	2.60 ± 0.20	$0.04^{+0.07}_{-0.02}$		
070714B	$3(64)^{\dagger}$			0.92	16
070724A	0.400	1.81 ± 0.33	$0.37^{+0.26}_{-0.17}$	0.457	17
070729	0.900	0.96 ± 0.27	$0.89^{+0.06}_{-0.57}$		
070809	1.300	1.69 ± 0.22	$0.09^{+0.13}_{-0.05}$		
070810B	0.080	1.44 ± 0.37	$0.86^{+0.13}_{-0.16}$		
070923	0.050	1.02 ± 0.29	$0.99^{+0.00}_{-0.11}$		
071112B	0.300	0.69 ± 0.34	$0.97^{+0.01}_{-0.03}$		
071227	1.800	0.99 ± 0.22	$0.71^{+0.15}_{-0.59}$	0.384	18
080121	0.700	2.60 ± 0.80	$0.21^{+0.23}_{-0.11}$		
080123	$0.8(115)^{\dagger}$				
080426	1.700	1.98 ± 0.13	$0.06^{+0.09}_{-0.03}$		
080702A	0.500	1.34 ± 0.42	$0.53^{+0.42}_{-0.23}$		
080905A	1.000	0.85 ± 0.24	$0.88^{+0.07}_{-0.11}$	0.122	19

GRB	$T_{90}[s]$	PL	f_{NC} [a]	z	Ref
080919	0.600	1.10 ± 0.26	$0.94^{+0.03}_{-0.47}$		
081024A	1.800	1.23 ± 0.21	$0.12^{+0.59}_{-0.08}$		
081101	0.200	....[d]....	$0.85^{+0.03}_{-0.05}$		
081226A	0.400	1.36 ± 0.29	$0.60^{+0.36}_{-0.24}$		
090305A	0.400	0.86 ± 0.33	$0.96^{+0.02}_{-0.36}$		
090417A	0.072	....[d]....	$0.92^{+0.02}_{-0.03}$		
090426	1.200	1.93 ± 0.22	$0.10^{+0.15}_{-0.06}$	2.609	20
090510	0.300	0.98 ± 0.20	$0.97^{+0.01}_{-0.29}$	0.903	21
090515	0.036	....[d]....	$0.94^{+0.03}_{-0.07}$		
090621B	0.140	0.82 ± 0.23	$0.99^{+0.01}_{-0.01}$		
090815C	0.600	0.90 ± 0.47	$0.94^{+0.03}_{-0.47}$		
091109B	0.300	0.71 ± 0.13	$0.97^{+0.01}_{-0.03}$		
100117A	0.300	0.88 ± 0.22	$0.97^{+0.01}_{-0.03}$	0.92	22
100206A	0.120	0.63 ± 0.17	$0.99^{+0.01}_{-0.01}$		
100625A	0.330	0.90 ± 0.10	$0.97^{+0.02}_{-0.03}$		
100628A	0.036	....[d]....	$0.94^{+0.03}_{-0.07}$		
100702A	0.160	1.54 ± 0.15	$0.80^{+0.06}_{-0.20}$		
100724A	1.400	1.92 ± 0.21	$0.08^{+0.12}_{-0.04}$	1.288	23
101129A	0.350	0.80 ± 0.50	$0.97^{+0.02}_{-0.33}$		
101219A	0.600	0.63 ± 0.09	$0.94^{+0.03}_{-0.06}$		
101224A	0.200	....[d]....	$0.85^{+0.03}_{-0.05}$		
110112A	0.500	2.14 ± 0.46	$0.30^{+0.26}_{-0.15}$		
110420B	0.084	....[d]....	$0.91^{+0.02}_{-0.03}$		
111020A	0.400	1.37 ± 0.26	$0.60^{+0.36}_{-0.24}$		
111117A	0.470	0.65 ± 0.22	$0.96^{+0.03}_{-0.05}$	1.31	24
111126A	0.800	1.10 ± 0.30	$0.91^{+0.05}_{-0.54}$		

[a] *Swift* GRBs with a single power-law spectral fit are assigned a probability f_{NC} (T_{90}, PL) Other GRBs can only be assigned a probability f_{NC} (T_{90}).

[b] A GRB detected by HETE, f_{NC} (T_{90}) is estimated using the *Swift* probability function

[c] A GRB detected by Integral, f_{NC} (T_{90}) is estimates using the BATSE probability function

[d] The spectral fit of the γ-ray photons is a power-law with an exponential cutoff, f_{NC} (T_{90}, PL) cannot be calculated for this burst and f_{NC} (T_{90}) is used instead.

[†] A GRB with an extended soft emission, no f_{NC} is assigned.

[*] Unsecure redshift, based on an association of a galaxy within the XRT error circle.

Redshift references: (1)Prochaska et al. (2005a); Gehrels et al. (2005); (2)Villasenor et al. (2005); Fox et al. (2005); (3)Berger et al. (2005); Prochaska et al. (2005b); (4)Gehrels et al. (2005); Berger (2005); Foley, Bloom, & Chen (2005); (5)Berger & Soderberg (2005); Soderberg et al. (2006); (6)de Ugarte Postigo et al. (2006); Levan et al. (2006); (7)Bloom et al. (2006); (8)Ofek et al. (2006); Levesque & Kewley (2007); (9)Price, Berger, & Fox (2006); Fugazza et al. (2006); (10)Cucchiara, Cannizzo, & Berger (2006); (11)Berger (2007a); (12)Berger (2006a, 2007b); (13)Cenko et al. (2006); (14)Berger (2006b); (15)Perley et al. (2007); (16)Graham et al. (2007); (17)Cucchiara et al. (2007); Covino et al. (2007); (18)D'Avanzo et al. (2007); Berger, Morrell, & Roth (2007c); (19)Rowlinson et al. (2010); (20)Levesque et al. (2009); Thoene et al. (2009); (21)Rau, McBreen, & Kruehler (2009); (22)Fong et al. (2011); (23)Thoene et al. (2010); (24)Margutti et al. (2012); Sakamoto et al. (2013)

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