

Swift Observations of GRB 120218A

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1 Introduction

At 00:49:22 UT on 2012-02-18, the Swift Burst Alert Telescope (BAT) triggered and located GRB 120218A (trigger=515277). Swift did not slew due to a Sun constraint. Swift could not slew to the BAT position until 19:14 UT on 2012 March 20 (Wolf et al., *GCN Circ.* 12962)

The best *Swift* position of this burst is the BAT position given in Barthelmy et al. (*GCN Circ.* 12963) with RA-2000 = 21h 19m 03.4s, and Dec-2000 = $-25^{\circ} 27' 45.4''$ with an uncertainty of $1.9'$.

2 BAT Observation and Analysis

At 00:49:22 UT on 2012-02-18, the Swift Burst Alert Telescope (BAT) triggered and located GRB 120218A (trigger=515277, Wolf et al., *GCN Circ.* 12962). Using the data set from T-239 to T+303 s, the BAT ground-calculated position is RA, Dec = 319.7641, -25.4626 deg which is

RA(J2000) = 21h 19m 03.4s

Dec(J2000) = $-25^{\circ} 27' 45.4''$

with an uncertainty of 1.9 arcmin, (radius, sys+stat, 90% containment). The partial coding was 4% (Barthelmy et al. *GCN Circ.* 12963).

The mask-weighted light curve (Figure 1) shows 3 or 4 overlapping peaks starting at T-28 s, with the brightest peak at T+3 s, and ending at T+15 s. T_{90} (15-350 keV) is 27.5 ± 1.0 s (estimated error including systematics).

The time-averaged spectrum from T-20.6 to T+8.9 s is best fit by a simple power-law model. The power law index of the time-averaged spectrum is 1.75 ± 0.11 . The fluence in the 15-150 keV band is $5.3 \pm 0.4 \times 10^{-6}$ erg cm^{-2} and the 1-sec peak flux measured from T+2.33 s in the 15-150 keV band is 9.1 ± 1.2 photons $\text{cm}^{-2} \text{s}^{-1}$. All the quoted errors are at the 90% confidence level.

The results of the batgrbproduct analysis are available at http://gcn.gsfc.nasa.gov/notices_s/515277/BA/

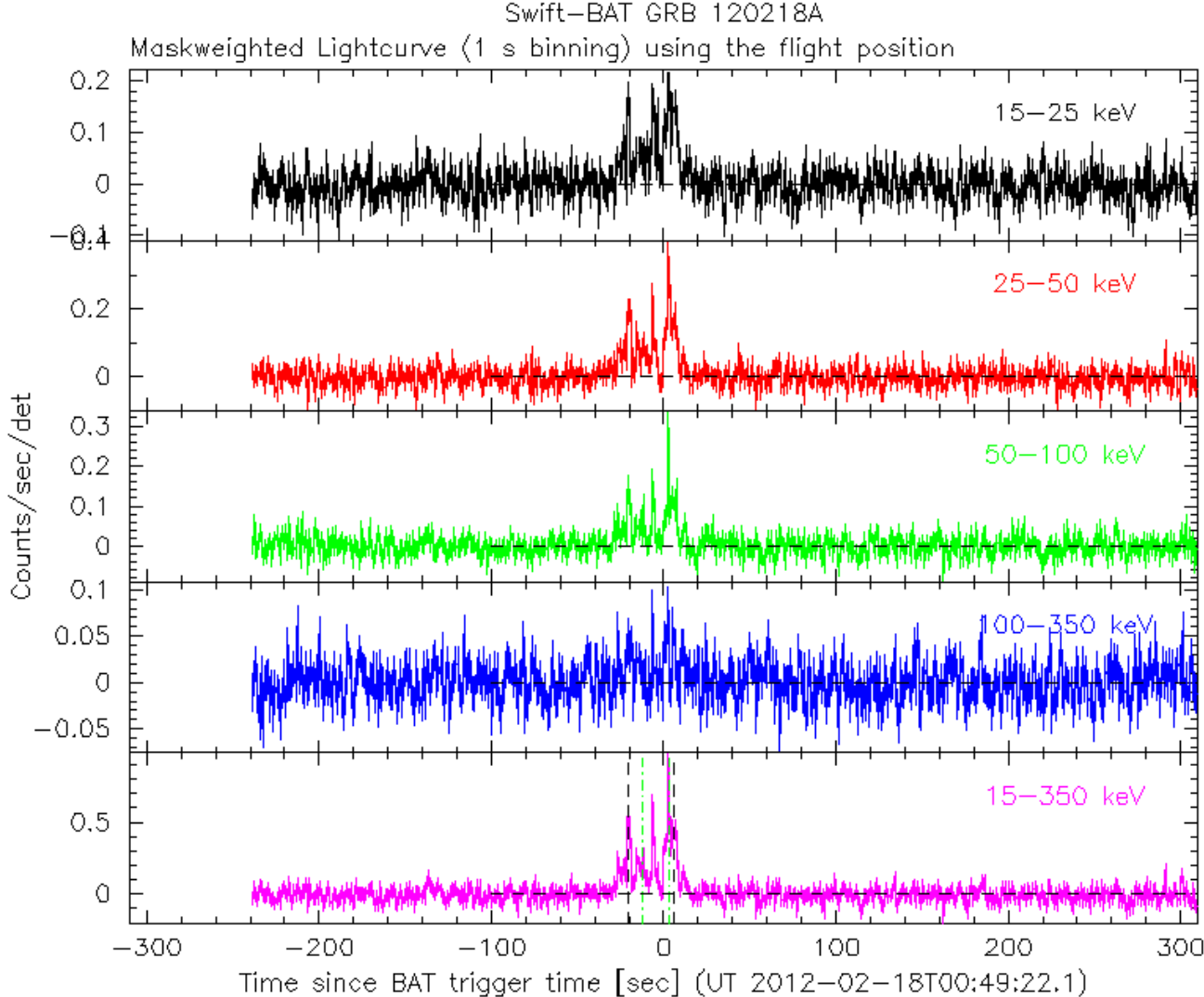


Figure 1: BAT Light curve of GRB 120218A.