



## UvA-DARE (Digital Academic Repository)

### X-ray Flare from Galactic Center Detected by Swift

Reynolds, M.; Kennea, J.; Miller, J.; Degenaar, N.; Wijnands, R.

**Publication date**

2018

**Document Version**

Final published version

**Published in**

The astronomer's telegram

**License**

Unspecified

[Link to publication](#)

**Citation for published version (APA):**

Reynolds, M., Kennea, J., Miller, J., Degenaar, N., & Wijnands, R. (2018). X-ray Flare from Galactic Center Detected by Swift. *The astronomer's telegram*, 11313.  
<http://www.astronomerstelegam.org/?read=11313>

**General rights**

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

**Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

# The Astronomer's Telegram

[Post](#) | [Search](#) | [Policies](#)  
[Credential](#) | [Feeds](#) | [Email](#)

10 May 2019; 07:35 UT

## Outside

[GCN](#)  
[IAUCs](#)

## Other

[ATel on Twitter](#) and [Facebook](#)  
[ATELstream](#)  
[ATel Community Site](#)

This space for free for your conference.



[ [Previous](#) | [Next](#) | [ADS](#) ]

## X-ray Flare from Galactic Center Detected by Swift

ATel #11313; *Mark Reynolds (University of Michigan), Jamie Kennea (Penn State University), Jon Miller (University of Michigan), Nathalie Degenaar (University of Amsterdam), Rudy Wijnands (University of Amsterdam), on behalf of a larger collaboration*  
*on 17 Feb 2018; 05:39 UT*

*Credential Certification: Mark Reynolds (markrey@umich.edu)*

Subjects: Radio, Millimeter, Infra-Red, X-ray, Request for Observations, AGN, Black Hole

We report the detection of a large X-ray flare, in a 1ks XRT observation on 2018-02-17 (00:45UT), originating from the direction of the Galactic center during regular monitoring observations with Swift (Degenaar+ 2015, JHEA 7, 137).

The source is observed to be variable (0.02 ct/s -- 0.08 ct/s) with an average count rate of 0.04+/-0.01 ct/s resulting in a total of 40 counts detected during the observation, facilitating basic spectral fitting. Assuming a fixed column density of  $9.1e22 \text{ cm}^{-2}$  (Degenaar+ 2015) and fitting with a power-law in the 2 - 10 keV bandpass, we measure (68% confidence)

Gamma: 1.5 +/- 0.6

norm: 0.003 +0.004 -0.002

resulting in an absorbed flux of  $\sim 1e-11 \text{ erg/s/cm}^2$  (2-10 keV), or a luminosity of  $\sim 7.7e34 \text{ erg/s}$  for an assumed distance of 8 kpc.

The position of the source of this flare is nominally consistent with the position of Sgr A\*. The properties of this flare are consistent with previous detections of flares from Sgr A\* as part of the long term Galactic center monitoring program (Degenaar+ 2013, ApJ, 769, 155). Swift will observe the GC region again later today as part of the regular monitoring program (Atel #11263) and significant further evolution will be reported in subsequent telegrams.

Follow-up observations are encouraged to determine the source of this flare.

Our daily Swift X-ray monitoring campaign of the Galactic center will continue throughout 2018. Updates on new observations are immediately posted at the Swift Sgr A\* Monitoring Campaign website.

### Related

<b>11313</b>	<b>X-ray Flare from Galactic Center Detected by Swift</b>
<b>11263</b>	Swift resumes X-ray monitoring observations of the Galactic center in 2018
<b>10900</b>	Swift/XRT detects activity of a very-faint X-ray transient, likely the neutron star X-ray binary AX J1745.6-2901, near Sgr A*
<b>10859</b>	Swift/XRT detects a new accretion outburst of the Galactic center neutron star transient GRS 1741-2853
<b>9196</b>	Continued Swift/XRT observations of the new Galactic center transients SWIFT J174540.2-290037 and SWIFT J174540.7-290015
<b>9109</b>	Swift/XRT detection of another active X-ray transient close to Sgr A*
<b>8881</b>	Swift/XRT detects renewed activity of the Galactic center transient GRS 1741-2853
<b>5226</b>	New Swift/XRT observations confirm that the active Galactic center transient is AX J1745.6-2901
<b>1513</b>	Chandra detects Swift J174535.5-290135.6 in a relatively bright state

[ **Telegram Index** ]

R. E. Rutledge, Editor-in-Chief

Derek Fox, Editor

Mansi M. Kasliwal, Co-Editor

rrutledge@astronomerstelegam.org

dfox@astronomerstelegam.org

mansi@astronomerstelegam.org