UNIVERSITY OF AMSTERDAM

UvA-DARE (Digital Academic Repository)

Swift/XRT detects activity of the Galactic center transient GRS 1741-2853

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

Publication date
2013
Document Version
Final published version
Published in
The astronomer's telegram

Link to publication

Citation for published version (APA):
Degenaar, N., Reynolds, M. T., Miller, J. M., Wijnands, R., Kennea, J. A., & Gehrels, N. (2013). Swift/XRT detects activity of the Galactic center transient GRS 1741-2853. *The astronomer's telegram*, *5246*. http://www.astronomerstelegram.org/?read=5246

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.

UvA-DARE is a service provided by the library of the University of Amsterdam (https://dare.uva.nl)
Download date:20 Apr 2024

Outside
GCN
IAUCs

Other
ATel on Twitter and Facebook
ATELstream
ATel Community Site
MacOS: Dashboard Widget

The Astronomer's Telegram
Post | Search | Policies
Credential | Feeds | Email

23 Jun 2014; 12:44 UT

This space for free for your conference.

IAU Symposium 305
Polarimetry: From the Sun to Stars and Stellar Environments
Costa Rica
Nov 30-Dec 5 2014

[Previous | Next | ADS]

Swift/XRT detects activity of the Galactic center transient GRS 1741-2853

ATel #5246; *N. Degenaar, M. T. Reynolds, J. M. Miller (Michigan), R. Wijnands (UvA), J. A. Kennea (PSU) and N. Gehrels (GSFC), on behalf of a larger collaboration*
*on **3 Aug 2013; 01:38 UT***
Credential Certification: Nathalie Degenaar (degenaar@umich.edu)

Subjects: X-ray, Binary, Neutron Star, Transient

Referred to by ATel #: 5332

Tweet 3 Recommend 2

During regular monitoring observations of the Galactic center with the Swift/XRT (Atel #5006; see link below), we detect a transient X-ray source located ~10 arcmin NW of Sgr A*. It is weakly detected at a 3-sigma level during a ~1.1 ks PC-mode observation performed on 2013 August 1, at a net count rate of ~5E-3 counts/s. Subsequent observations obtained on August 2 (~1.0 ks) show that the source brightened to ~1.5E-2 counts/s. The position of this object is consistent with that of the transient neutron star low-mass X-ray binary and thermonuclear X-ray burster GRS 1741-2853. The Swift observations indicate that this source is entering a new accretion outburst.

Assuming an absorbed power-law model with a photon index of 2 and a hydrogen column density of 1E23 cm-2, the observed XRT count rates translate into 2-10 keV unabsorbed fluxes of ~1E-12 and ~3E-12 erg/cm2/s for August 1 and 2, respectively. For a distance of 7.2 kpc (Trap et al. 2009), the corresponding luminosities are ~6E33 erg/s (August 1) and ~2E34 erg/s (August 2). GRS 1741-2853 has frequently been seen active during the Swift/XRT monitoring campaign of the Galactic center; outbursts were detected in 2006, 2007, 2009 and 2010 (Degenaar & Wijnands 2009, 2010; ATel #2770). These active periods generally have a duration of a few weeks, with typical luminosities in the range of ~1E35-1E36 erg/s (Degenaar & Wijnands 2010).

In addition to GRS 1741-2853, the Swift/XRT observations detect ongoing activity from the transient neutron star low-mass X-ray binary AX J1745.6-2901 (ATels #5222, #5226), and the magnetar SGR J1745-29 (e.g., Kennea et al. 2013).

The Swift Monitoring Campaign website can be found at: http://www.swift-sgra.com

References:
Degenaar & Wijnands 2009, A&A 495, 547
Degenaar & Wijnands 2010, A&A 524, 69
Kennea et al. 2013, ApJ 770, L24
Trap et al. 2009, A&A 504, 501

Related
6083 Sgr A* at 22 GHz around the G2 peri-center passing with Japanese VLBI Network
6004 Progress Report of the Monitor of Sgr A* with Japanese VLBI Network at 22 GHz until 2014/76
5861 Continued Swift/XRT monitoring observations of the Galactic center
5847 Swift/XRT observations of the Galactic center have resumed
5332 Report on (non-)activity in the Galactic bulge region as seen by INTEGRAL
5319 MAXI/GSC detection of a new X-ray outburst from RX J1709.5-2639(=XTE J1709-267)
5301 A new outburst from LMXB 1A 1744-361
5254 Swift detection of a third burst from SGR J1745-29
5246 Swift/XRT detects activity of the Galactic center transient GRS 1741-2853
5241 MAXI/GSC detection of a renewed outburst from the black hole candidate H 1743-322
5226 New Swift/XRT observations confirm that the active Galactic center transient is AX J1745.6-2901
5222 Swift/XRT monitoring observations detect an active X-ray transient near the Galactic center
5190 Swift observations of a new outburst of the SFXT IGR J08408-4503
5184 Report of the Daily Monitor of Sgr A* at 22 GHz
5179 Swift observations of a new outburst of the SFXT IGR J17544-2619
5163 Limits on Low Frequency Radio Flux Density Changes for Sgr A* (erratum)
5159 Limits on Low Frequency Radio Flux Density Changes for Sgr A*
5153 NRAO VLA service monitoring observations of Sgr A*
5124 Swift/BAT detection of a burst from SGR J1745-29
5095 Chandra confirmation of transient X-ray activity from CXOGC J174540.0-290005 north of the Galactic Center
5076 Detection of radio pulsations at 22 GHz from the Magnetar

PSR J1745-2900 in the archival data from 2011
5074 Swift/XRT detection of an active X-ray transient near the Galactic center
5073 NuSTAR detection of a transient in outburst north of Sgr A*
5070 Search for pulsed radio emission from PSR J1745-2900 at 1 GHz with the GMRT
5064 Polarisation profiles and rotation measure of PSR J1745-2900 measured at Effelsberg
5058 On-going radio observations of PSR J1745-2900 at Effelsberg, Nancay, and Jodrell Bank: flux density estimates, polarisation properties, spin-down measurement, and the highest dispersion measure measured.
5053 Detection by Sardinia Radio Telescope of radio pulses at 7 GHz from the Magnetar PSR J1745-2900 in the Galactic center region
5046 Spin-down Measurement of PSR J1745-2900: a New Magnetar
5043 Further radio pulsations from the direction of the NuSTAR 3.76-second X-ray pulsar, and a dispersion measure estimate.
5041 MAXI/GSC detection of an X-ray outburst probably from SAX J1747.0-2853 and Swift followup observation of the Galactic center region
5040 Detection of radio pulsations from the direction of the NuSTAR 3.76 second X-ray pulsar at 8.35 GHz
5037 Swift-BAT monitoring for additional bursts from SGR J1745-29 (Trigger 554491)
5035 Detection of radio pulsations from the direction of the Galactic center Soft Gamma-ray Repeater with Parkes and the GBT
5033 Searches for Dispersed Radio Pulsar Emission from the Sag A* SGR
5032 Chandra localization of the soft gamma repeater in the Galactic Center region
5027 Searches for radio pulsations from the 3.76 second NuSTAR X-ray pulsar in the Galactic centre.
5025 Limits on Radio Frequency Flux Density Changes in Sgr A*
5024 NICT VLBI Observations of Sgr A* at 8 GHz and 2 GHz
5020 NuSTAR discovery of a 3.76 second pulsar in the Sgr A* region
5018 1.3mm CARMA Flux Density for Sgr A*
5016 Continued Swift Monitoring of the Galactic Center Flare
5014 Brightening of Sgr A* at 32 GHz from VLA observations
5013 Possible brightening at 22 GHz of Sgr A*

5011 Swift XRT spectrum of transient X-ray source at Sgr A*'s position

5009 Swift/BAT detection of an SGR-like flare from near Sgr A*

5008 Ongoing X-ray activity from Sgr A*

5006 Large Flare from Sgr A* Detected by Swift

4939 Swift detects a flare from IGR J16418-4532

4923 Non-detection of flare at 22 GHz of Sgr A* induced by the approaching G2 cloud in February and March 2013

4848 INTEGRAL/JEM-X detects a new outburst of the Rapid Burster (MXB 1730-335)

4840 Transient X-ray burster KS 1741-293 active again

4471 1E 1740.7-2942 (the Great Annihilator) enters a low-intensity state

4450 Swift J174510.8-262411 in the hard intermediate state

4419 MAXI/GSC detects a new outburst from the black hole candidate H 1743-322

4366 Swift observes an outburst from the supergiant fast X-ray transient XTE J1739-30

4304 INTEGRAL detects the recurrent transients XTE J1709-267 and XTE J1739-285 in outburst

4276 Swift observes a new outburst from the SFXT AX J1841.0-0536

4275 Swift observations of a new outburst of the SFXT IGR J17544-2619

4176 Swift observes a new outburst from the Supergiant Fast X-ray Transient AX J1841.0-0536

4095 Swift observes a new outburst from the Supergiant Fast X-ray Transient AX J1845.0-0433

3842 MAXI/GSC detects a quasi-regular outburst and a possible soft state transition in H 1743-322

3646 INTEGRAL Galactic Bulge monitoring: transient activity from KS 1741-293, MXB 1730-335, and IGR J17498-2921

3632 Swift detects an X-ray burst and renewed activity from KS 1741-293

3586 Swift observations of a new outburst of the SFXT IGR J08408-4503

3453 Swift detected outburst of the SFXT IGR J18410-0535/AX1841.0-0536

2856 INTEGRAL non-detection of enhanced Crab flux

2825 INTEGRAL confirms that XTE J1728-295 = IGR J17285-2922

2774 MAXI/GSC detects a re-brightening from the black hole candidate H 1743-322

2770 Swift/XRT detects new outbursts of the galactic center X-ray transients GRS 1741-2853 and XMM J174457-2850.3

2729 MAXI/GSC detects an X-ray outburst of RX J1709.5-2639 (XTE J1709-267)

2690 Swift/XRT detects renewed activity of the galactic center X-ray transient AX J1745.6-2901

2662 Analysis of Swift data of the June 5 outburst of the SFXT IGR J18410-0535/AX1841.0-0536

2520 A new outburst of the SFXT IGR J08408-4503 observed by Swift

2465 INTEGRAL reports renewed activity from KS 1741-293

2364 Renewed Activity from H 1743-322 detected by MAXI/GSC

2305 New X-ray Outburst in X1744-361 (A1744-36)

2178 Swift observations of a new outburst of the SFXT IGR J08408-4503

2102 Swift observations of an outburst of the SFXT AX J1845.0-0433/IGR J18450-0435

1587 New X-ray Outburst in X1744-361

1557 Hard X-ray activity from Aquila X-1

1531 Chandra detects activity from the Galactic X-ray transients KS 1741-293, Swift J174535.5-290135.6 and CXOGC J174535.5-290124

1513 Chandra detects Swift J174535.5-290135.6 in a relatively bright state

1302 X-ray outburst from RX J1709-2639

1113 4U 1608-522 in X-ray outburst

1105 Swift/BAT discovers a new galactic transient: SWIFT J1756.9-2508

1064 SAX J2103.5+4545 Continues to be observable with Swift/BAT

1061 Cygnus X-3 re-entering its high-soft state

1058 Long duration outbursts from the two X-ray bursters AX J1745.6-2901 and GRS 1741.9-2853 suggested by XMM-Newton observations

1028 Cygnus X-3 re-enters the low-hard state

1006 Renewed activity of the Galactic center transients Swift J174535.5-290135.6 and GRS 1741.9-2853 as observed with Swift/XRT

1005 Two active X-ray transients in the Galactic Center region as seen by INTEGRAL

904 Announcement of the Swift/BAT Hard X-ray Transient Monitor

892 Renewed activity of the very faint X-ray transient CXOGC J174535.5-290124 and continued activity of the neutron-star X-ray transient SAX J1747.0-2853

756 INTEGRAL detects SWIFT J174535.5-290135.6

753 Swift/XRT detection of a transient source in the

Galactic Center
567 New Outburst of A1744-36 = XTE J1748-361
267 Discovery of the optical counterpart to XTEJ1748-361=A1744-36
265 A Second Recent Outburst of XTE J1748-361 (or A1744-36)
257 1E1740.7-2942 and KS1741-293
255 RXTE PCA Detections of Transient Activity of X-ray Bursters in the Galactic Center Region
210 Radio observations of XTE J1748-361 (=A1744-36?)
204 New X-ray Transient XTE J1748-361 (may be A1744-36)
94 Black-Hole Candidate 1E 1740.7-2942 Enters a Faint Soft State

---

[Telegram Index]

R. E. Rutledge, Editor-in-Chief rrutledge@astronomerstelegram.org
Derek Fox, Editor dfox@astronomerstelegram.org
Mansi M. Kasliwal, Co-Editor mansi@astronomerstelegram.org