



UvA-DARE (Digital Academic Repository)

Continuing outburst of Galactic transient IGR J17451-3022

Bahramian, A.; Heinke, C.O.; Wijnands, R.; Altamirano, D.

Publication date

2015

Document Version

Final published version

Published in

The astronomer's telegram

[Link to publication](#)

Citation for published version (APA):

Bahramian, A., Heinke, C. O., Wijnands, R., & Altamirano, D. (2015). Continuing outburst of Galactic transient IGR J17451-3022. *The astronomer's telegram*, 7028. <http://www.astronomerstelegam.org/?read=7028>

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.

24 Dec 2015; 10:43 UT

Outside

GCN
IAUCs

Other

ATel on [Twitter](#) and [Facebook](#)
ATELstream
ATel Community Site
MacOS: [Dashboard Widget](#)

Your Conference Here

This space for free for
conference advertising.[[Previous](#) | [Next](#) | [ADS](#)]

Continuing outburst of Galactic transient IGR J17451-3022

ATel #7028; [A. Bahramian](#), [C. O. Heinke \(Alberta\)](#), [R. Wijnands \(Amsterdam\)](#), [D. Altamirano \(Southampton\)](#)

on 5 Feb 2015; 14:32 UT

Credential Certification: [Arash Bahramian \(bahramia@ualberta.ca\)](mailto:bahramia@ualberta.ca)

Subjects: X-ray, Black Hole, Neutron Star, Transient

Referred to by ATel #: [7096](#), [7570](#)

Tweet

Recommend

1

IGR J17451-3022 is a transient X-ray source ~ 1.4 degree from the Galactic center. It was discovered early in its outburst in INTEGRAL JEM-X observations obtained between Aug. 28 & Aug 30, 2014 (ATel #[6451](#)). We monitored this source using the Swift/XRT telescope multiple times per week during September and October 2014 (ATels #[6459](#), #[6469](#), #[6486](#)). The source had relatively constant flux and maintained a soft, absorbed spectrum well-fit with either a blackbody, a disk blackbody or a powerlaw (ATel #[6501](#)).

This monitoring was interrupted due to Sun constraints from Nov. 2nd, 2014 to Feb. 1st, 2015. We observed this transient again on Feb. 2nd, 2015 with Swift/XRT in PC mode (ObsID 33439014) for 2 ks. IGR J17451-3022 is bright and therefore our observation is slightly piled-up. Thus, we extracted a spectrum from an annulus with inner radius of 8" and outer radius of 50". The spectrum can be described by a blackbody with a temperature of 1.1 ± 0.1 keV, or a disk blackbody with innerdisk temperature of 1.6 ± 0.3 keV. A powerlaw with photon index of 2.8 ± 0.4 also provides a good fit.

These results are consistent with previous observations of the source before entering the Sun constraint (ATel #[6501](#)), suggesting the source has remained in the same bright soft state for the last 4-5 months, showing no significant variations in brightness or spectrum.

The nature of this transient is still unknown, and both a low mass X-ray binary or a magnetar are among suggested identifications.

We thank the Swift team for scheduling our observations.

Related

- 7570 [IGR J17451-3022 returning to quiescence](#)
- 7361 [Discovery of eclipses in the X-ray transient IGR J17451-3022](#)
- 7352 [The neutron star LMXB 1RXS J180408.9-342058 transitioned to a soft X-ray state](#)
- 7255 [Radio detection of the transient neutron star LMXB 1RXS J180408.9-342058](#)
- 7100 [Optical observations of the transient 1RXS J180408.9-342058](#)
- 7096 [INTEGRAL detection of the on-going outbursts from 1RXS J180408.9-342058 and GRO J1750-27](#)
- 7039 [Swift observations of 1RXS J180408.9-342058](#)
- 7028 [Continuing outburst of Galactic transient IGR J17451-3022](#)
- 7020 [Chandra position of IGR J17454-2919 and discovery of a possible NIR counterpart](#)
- 7008 [MAXI/GSC observation of 1RXS J180408.9-342058 in outburst](#)
- 6997 [Swift/BAT detects an outburst from the neutron star binary 1RXS J180408.9-342058](#)
- 6839 [New Outburst of the Be/X-ray Transient GRO J1750-27 Detected with Fermi/GBM](#)
- 6602 [INTEGRAL/JEM-X sees enhanced activity in the Galactic center region: SAX J1747.0-2853 and IGR J17454-2919](#)
- 6574 [Hard X-ray spectral and timing properties of IGR J17454-2919 consistent with a black hole in the hard state](#)
- 6533 [Chandra Localization of IGR J17451-3022](#)
- 6530 [IGR J17454-2919: a new X-ray transient found by INTEGRAL/JEM-X close to the Galactic Center](#)
- 6501 [New Galactic transient IGR J17451-3022 still soft](#)
- 6486 [Detection of spectral hardening in IGR J17451-3022; evidence for a LMXB](#)
- 6469 [Swift observations of the ongoing outburst of IGR J17451-3022](#)
- 6459 [Soft, absorbed X-ray spectra of the new transient IGR J17451-3022](#)

- 6451 A new X-ray transient, IGR J17451-3022, discovered by INTEGRAL/JEM-X near the Galactic Centre
- 4085 Swift observations of 1RXS J180408.9-342058; return to quiescence
- 4050 INTEGRAL catches a type-I X-ray burst from the unclassified X-ray source 1RXS J180408.9-342058
- 3930 INTEGRAL Bulge monitoring program detects several active transients with JEM-X
- 3183 First superburst observed by INTEGRAL, from SAX J1747.0-2853
- 1739 INTEGRAL spots renewed activity from H1743-322
- 1471 Earlier activity from XTE J1739-302/IGR J17391-3021 detected by INTEGRAL
- 1468 Continuous brightening of IGR J17473-2721
- 1461 Hard X-ray activity of IGR J17473-2721
- 1401 Swift observations of the continuing outburst of GRO J1750-27
- 1400 Further observations of GRO J1750-27 (AX J1749.1-2639) with INTEGRAL
- 1398 Recent activity of the Rapid Burster (MXB 1730-335)
- 1387 Swift/XRT observation of H1743-322
- 1385 INTEGRAL Galactic bulge monitoring observations of GRO J1750-27 (AX J1749.1-2639), H1743-322 and SLX 1746-331
- 1384 On-going radio observations of H1743-322
- 1378 Galactic black hole transient H1743-322 in transition to the hard state
- 1376 Swift/BAT Detects Increased Activity from the Accreting Pulsar GRO J1750-27
- 1352 Further radio observations of H1743-322
- 1349 Radio detection of the black hole transient H 1743-322 in outburst.
- 1348 Galactic black hole transients H1743-322 and 4U 1630-47 in outburst
- 1235 SLX 1746-331 In Outburst
- 1005 Two active X-ray transients in the Galactic Center region as seen by INTEGRAL
- 874 New INTEGRAL source, IGR J17354-3255, and continuation of the INTEGRAL Galactic Bulge monitoring program

[[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