



GCN CIRCULAR 23517: INTEGRAL observations of the events in the GWTC-1 catalog

Savchenko, V.; Ferrigno, C.; Bozzo, E.; Kuulkers, E.; Sanchez, C.; Mereghetti, S.; Rodi, James C.; Bazzano, A.; Ubertini, P.; Natalucci, L.; Chenevez, Jérôme; Brandt, Søren; Diehl, R.; von Kienlin, A.; Gotz, D.; Laurent, P.; Hanlon, L.; Martin-Carrillo, A.; Roques, J. P. ; Jourdain, E.; Lutovinov, Alexander A.; Sunyaev, R.

Publication date:
2018

Document Version
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

Citation (APA):
Savchenko, V., Ferrigno, C., Bozzo, E., Kuulkers, E., Sanchez, C., Mereghetti, S., ... Sunyaev, R. GCN CIRCULAR 23517: INTEGRAL observations of the events in the GWTC-1 catalog

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

TITLE: GCN CIRCULAR
NUMBER: 23517
SUBJECT: INTEGRAL observations of the events in the GWTC-1 catalog
DATE: 18/12/07 11:09:45 GMT
FROM: Volodymyr Savchenko at ISDC,U of Geneve <savchenk@in2p3.fr>

V. Savchenko, C. Ferrigno, E. Bozzo (ISDC, University of Geneva, CH)
E. Kuulkers (ESTEC/ESA, The Netherlands)
C. Sanchez (ESAC/ESA, Madrid)
S. Mereghetti (INAF IASF-Milano, Italy)
J. Rodi, A. Bazzano, P. Ubertini, L. Natalucci (IAPS-Roma)
J. Chenevez, S. Brandt (DTU, Denmark)
R. Diehl, A. von Kienlin (MPE, Germany)
D. Gotz, Ph. Laurent (DRF/Irfu/Dap Saclay/CEA)
L. Hanlon, A. Martin-Carrillo (UCD, Ireland)
J.-P. Roques, E. Jourdain (IRAP, France)
A. Lutovinov, R. Sunyaev (IKI, Russia)

Recently, LIGO/Virgo announced the catalog of gravitational wave events during the first two observing runs O1 and O2 [GWTC-1, arXiv:1811.12907]: 11 high-confidence and 14 marginal events.

INTEGRAL observations are available for 20 out of the 25 events from the complete GWTC-1 sample, consistent with the INTEGRAL duty cycle of about 85%.

In particular, the observations are available for 7 out of 11 (64%) of the high-confidence gravitational wave events and 13 out of 14 (93%) of the marginal ones.

For each of the observed events, INTEGRAL was sensitive to the entire LIGO/Virgo localization region. Our preliminary search did not reveal any new significant impulsive gamma-ray counterparts, setting typical upper limits on the 1-s peak flux ranging from $1e-7$ to $1e-6$ erg/cm²/s in 75-2000 keV energy range.

Detailed analysis and upper limits will be reported in a forthcoming paper.