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


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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 $10^{-7}$ to $10^{-6}$ erg/cm$^2$/s in 75-2000 keV energy range.

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