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INTEGRAL spots the very beginning of the current H1743-322 outburst

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INTEGRAL spots the very beginning of the current H1743-322 outburst

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Referred to by ATel #: [3277](#), [3280](#), [3842](#)

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The black hole candidate and microquasar H1743-322 (aka IGR J17464-3213) has entered a new outburst (ATel #[3263](#)).

In addition to the Galactic Bulge Monitoring (Kuulkers et al., 2007 A&A, 466,595) observations, the source was also in the field of view of IBIS/ISGRI (20-500 keV) during the INTEGRAL observations of the inner Galactic disc. The latter were performed during the satellite revolutions (Rev.) 1033 (2011-03-31 2.17h UT to 2011-04-01 21.95h UT), 1034 (2011-04-04 9.38h UT to 2011-04-04 22.7h UT), and 1035 (2011-04-06 8.25h UT to 2011-04-06 22.03h UT). During these observations the source was, however, outside the JEM-X (3-30 keV) field of view.

H1743-322 is not detected during the first of these observations, and we derive a 3-sigma upper limit of 4.5 mCrab in the 18-40 keV energy band, compatible with the non-detection on April 3, 2011 (ATel # [3263](#)).

H1743-322 is first detected by ISGRI during Rev 1034 in both the 18-40 keV (6.8 sigma) and 40-80 keV (4.0 sigma) energy ranges, with corresponding fluxes of, respectively, ~11 mCrab and ~12 mCrab.

These observations therefore mark the first true detection for the current outburst. In Rev

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1035 the source flux has increased to ~51 mCrab (~92 mCrab) in the 18-40 keV (40-80 keV).

The spectra are well fitted by using a simple power-law model. During Rev. 1034, we obtain $\Gamma=1.7$ (-0.6 +0.7) and a 20-40 keV (40-80 keV) flux of about 9.4×10^{-11} erg/s/cm² ($\sim 1.51 \times 10^{-10}$ erg/s/cm²). During Rev. 1035 $\Gamma=1.7$ (+0.1) and we estimate a 20-40 keV (40-80 keV) flux of $\sim 4.7 \times 10^{-10}$ erg/s/cm² ($\sim 5.9 \times 10^{-10}$ erg/s/cm²).

Our observations first allow us to confirm that H1743-322 has indeed entered a new outburst starting with a dominance of the its hard X-ray flux, as is often seen during outbursts of microquasars. Our spectral analysis confirms that it is in the hard spectral state. This state is usually associated with a high degree of rapid (~ 1Hz) variability and a powerful self absorbed compact jets.

The field around H1743-322 will be again observed by INTEGRAL on 2011-04-08 from about 7.7h UT to 21.0h and on 2011-04-10 from about 18.0 h UT to 21.7h UT. Further (simultaneous) observations at all wavelengths are encouraged

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