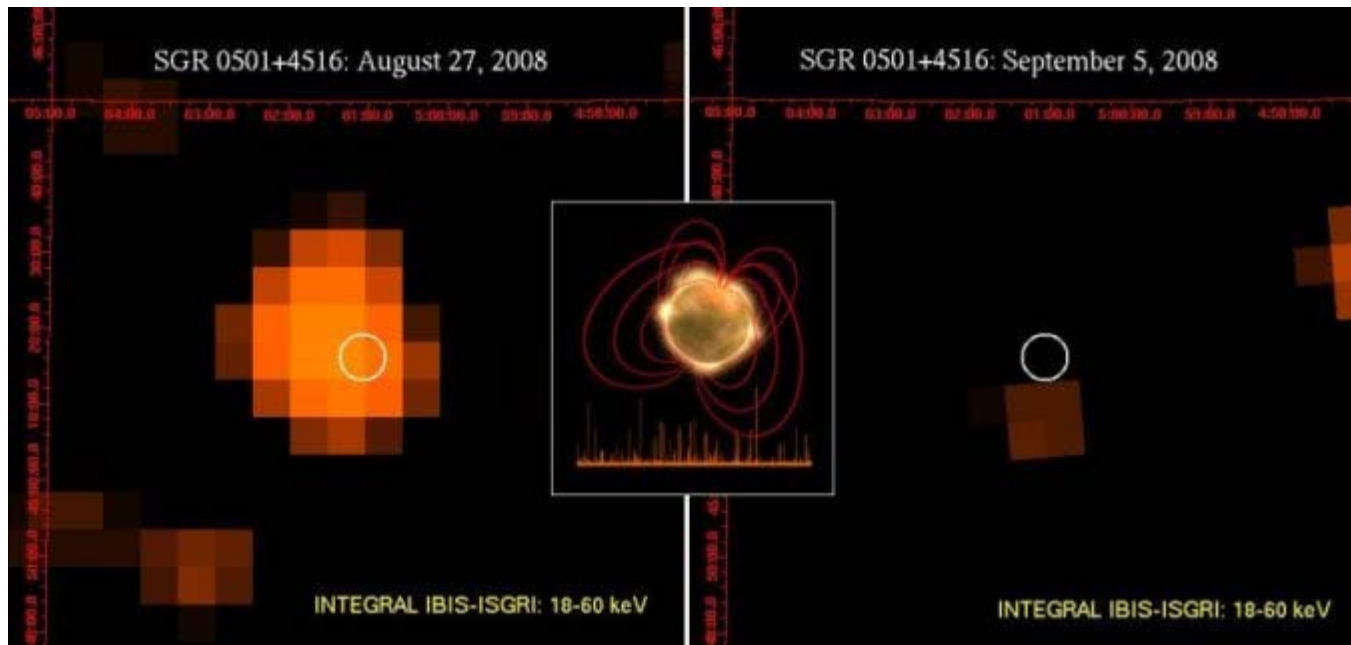


Picture of the Month

July 2009



SGR 0501+4516: a high-energy blast from a new 'dead' star

Magnetars are the most intensely magnetised objects in the Universe. They exhibit magnetic field strengths which are 10^{15} times stronger than that of the Earth. On 2008 August 22 a new magnetar, labelled SGR 0501+4516, underwent an outburst, which was promptly observed by INTEGRAL a few days after its activation. This led to the first discovery of transient hard X-ray emission in a magnetar, which faded out within about 10 days from the onset of the eruption. The left panel shows the IBIS-ISGRI image of SGR 0501+4516 taken 5 days after the outburst activation, while in the right panel the IBIS-ISGRI non-detection about 10 days later is shown. On both images the BAT error circle is superimposed on the SGR 0501+4516 position.

Related links:

- Giant eruption reveals 'dead' star (http://www.esa.int/esaSC/SEMLEDQORVF_index_0.html) (ESA news release story)
- At last! After 10 years a new Soft Gamma Repeater is observed (<http://sci.esa.int/science-e/www/object/index.cfm?fobjectid=45022>) (ESA Science & Technology web pages)
- The first outburst of the new magnetar candidate SGR 0501+4516 (<http://arxiv.org/abs/0904.2413>) (MNRAS in press)

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