

find that a simple decrease in the Thompson depth is all that is required to explain the observed change in the low-energy slope (Liang et al. 1997). Further evidence may be provided by recently discovered counterparts to GRB970228, observed with the Italian X-ray satellite *BeppoSAX* (Costa et al. 1997) and *Hubble Space Telescope* (Sahu et al. 1997). These counterparts fade at a rate that is consistent with saturated Comptonization. If this is indeed the emission mechanism, these observations place limits on the rate at which the spectral break energy decreases.

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IS THE EGRET SOURCE 2EG2020+4026 A GEMINGA-LIKE PULSAR?

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The error box of the EGRET source 2EG2020+4026, inside the γ -Cygni supernova remnant, has been found to contain a point-like X-ray source, denoted

as RX J2020.2+4026. Through optical observations, we consider unlikely the association of the X-ray source with the only coincidental star, a $m_v \approx 15$ star of type K0V with no signs of coronal activity. The most direct interpretation of the data available is that 2EG2020+4026 is a young pulsar: the γ -ray emission shows no time variability and the spectrum is similar to that of Geminga; there is an X-ray point source inside the error box and SNR, and the F_γ/F_X is higher than in all objects apart from pulsars; and the lack of a credible optical counterpart is also consistent with a γ -ray emitting neutron star.

The proof that 2EG2020+4026 is a pulsar would be the detection of pulsations. We searched for these in a sample of EGRET data corresponding to GCRO observation 203 containing 1129 photons events with $E > 200$ MeV. The search comprise most of the range of timing parameters of known pulsars, $\nu \lesssim 30$ Hz and $\dot{\nu} \lesssim 2.2 \times 10^{-11} \text{ Hz}^{-2}$, and no coherent pulsations of sufficient statistical significance were found after 3.78×10^9 tries. Its sensitivity was hampered by the high background in the source region and it does not constrain the pulsed fraction of the γ -ray flux. A thorough search requires higher S/N X-ray or γ -ray data.

Brazier K. T. S. et al. 1996, MNRAS, 281, 1033

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