Search for continuous gravitational waves from PSR J 0835-4510 (Vela) using the first observational data from the CLIO

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Abstract

We had done first observation run of the CLIO during February 12 -18 2007. A sensitivity of the CLIO is better in the low frequency bands. Then, we targeted PSR J0835-0415 (Vela) which was considered to radiate signals at about 22Hz. In the result, 4.6e-21 upper limit for 1% false of alarm rate was obtained.

Coordinated Observations of Sco X-1 with Gravitational Wave Detectors and the Rossi X-Ray Timing Explorer

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- We outline a joint analysis between LIGO and RXTE for observations of Sco X-1 during S5. A cross correlation of the x-ray and GW data is being pursued as well as a search for long term coherent pulsations in the x-ray data.

- Cross correlation would improve upon GW only sensitivity, assuming a common signature.

- Long term coherent pulsations could constrain the spin period of the neutron star component.