

## Poster Presentation //



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A multi-wavelength study on the isolated magnetic white dwarf EUVE J0317- 855 is performed to search for possible periodic pulsations. This source has been observed to emit periodic optical radiation at a period of about 725 seconds (12 minutes) which coincides with its rotation period. It is one of the fastest rotating magnetic white dwarfs that is not part of a binary system. Together with this short rotation period and very high magnetic field of  $B \sim 340$  MG, it behaves as a so-called white dwarf pulsar. Theoretical estimates show that this source could emit  $\gamma$ -ray emission at the spin period due to curvature radiation. X-ray emission is likely due to the backward flow of magnetically pair produced particles to the polar caps of the white dwarf. Fermi-LAT, CHANDRA, SUZAKU and ROSAT data are analyzed, and timing analysis is performed on the source to search for periodic pulsations. CHANDRA and SUZAKU data of the source were found to be too faint due to the short observation time and hence low X-ray photon counts. Utilizing ROSAT X-ray data, a period of  $P=725.68 \pm 0.74$ s was determined and that agrees with the pulsations observed in optical and  $\gamma$ -rays. Future work, including radio timing and the development of an accurate pulsar timing model, will be outlined.

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