

## MODELING THE DEPENDENCE OF THE X-RAY EMISSION OF 4U1907 ON ORBITAL PHASE

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4U1907 is an x-ray binary which has a 437.5 s pulsation period and a 8.38 day orbital period. The mass function is 9 solar masses, implying a B-type or more massive companion to the neutron star. Over an orbital period, 4U1907 exhibits a main peak and a smaller peak in x-ray emission, though both are variable. The neutron star is believed to accrete matter from the stellar wind with the variability due to variations in physical conditions around an eccentric orbit. Several sets of observations of 4U1907 now exist, including those by Tenma, EXOSAT, GINGA, and RXTE. Long term monitoring of 4U1907 has been done by the RXTE/All-Sky-Monitor. Here, modeling of the 4U1907 system, including the stellar wind, is carried out to explain both x-ray intensity and column density variations with orbital phase.