THE ORBITAL X-RAY LIGHT CURVE OF GX301-2

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GX301-2 is an x-ray pulsar in an eccentric orbit (e=0.47) with a massive early-type stellar companion. The neutron star accretes from the stellar wind and exhibits regular flares approximately 1.4 days prior to periastron passage. CGRO/BATSE observations have provided new improved orbital parameters. Long-term continuous x-ray monitoring of GX301-2 by the RXTE/All-Sky-Monitor has now been carried out for a period of 5 years. These data now comprise the best observations of the orbital x-ray light curve. Previous observations with other missions, such as RXTE, GINGA, and EXOSAT, are used to obtain column density measurements. Here, modeling of GX301-2 system, using the new CGRO/BATSE orbital parameters, and including the stellar wind, is carried out to explain the x-ray light curve, and also be consistent with the column density measurements.