Timing and Spectral Analysis of 4U 1626-67

Subham Kuri[1,*]

1 Kohima Science College (Autonomous), Jotsoma, Nagaland

* Presenting author (kuris1209@gmail.com)

We report the X-ray analysis findings from the ASTROSAT satellite data on the Low Mass X-ray Binary source 4U 1626-67. The data from LAXPC and SXT instruments onboard ASTROSAT have been used for the hard X-ray and soft X-ray analysis respectively. We present the timing analysis of the source including energy dependent results. We also report the spin period and modulation in the light curves across the entire energy range of both the instruments. Using the pulse period and pulse period derivative of the source, we calculate the approximate age, magnetic field, and energy generation rate of the source.

QPOs were also searched for in select energy ranges of the data source.

We also present the spectral analysis of the source for the 3-80 keV range of the LAXPC detector and the 0.3-8 keV range of the SXT detector and compare our findings to published literature.