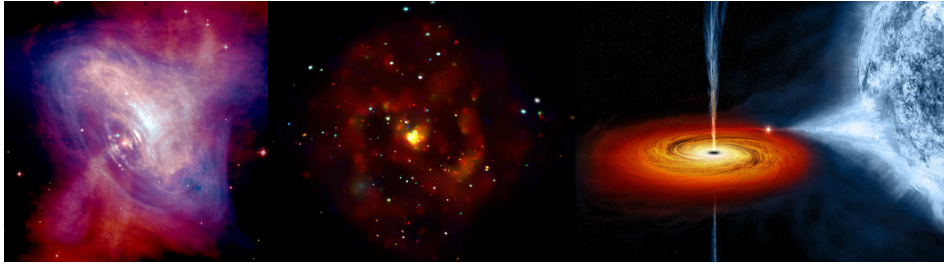


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Spectral and Timing evolution of Cyg X-2 like source GX 340+0 .

We present the result of the spectral and timing study of GX 340+0 which is a Cyg X-2-like source using AstroSat's SXT and LAXPC data. The source is found to be proceeding towards the flaring branch from the horizontal branch via normal branch as the observation progresses. Spectral analysis of SXT [1-7keV] and LAXPC data [4-25keV] in 1-25keV, reveals that the black body flux and flux ratio is increasing monotonically from HB to FB and interplay between the Compton flux and black body flux ratio decides the different position of the source in the Z track and not only the black body flux itself. The black body radius is found to be around 25 Km but a significant contraction of the radius has been observed in the FB, as we progress from LNB, with a marked increase in the blackbody temperature.

On the other hand, the 3-20keV LAXPC power density spectrum reveals the existence of the lower hertz QPO of frequency ~ 42 Hz in HB, HA, and UNB along with the presence of a broader feature, whose frequency increases as we progress from HB TO UNB. PDS also reveals the presence of 6 Hz and 6 HzHz QPO in soft apex and 6.56 Hz QPO in FB. The fractional rms is increasing with energy near the QPO frequency for all the QPOs whereas variation in the energy-dependent lag can be seen in the different branches which may be due to the lags between the variation of the input seed photons and the covering fraction.

Presentation Type

Poster

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