Supergiant Fast X-ray Transients (SFXTs) are a sub-class of High Mass X-ray Binaries where the clumpy wind from blue supergiant is accreted onto a a neutron star. A distinctive feature of such systems is their X-ray variability - they demonstrate short sporadic flares, with duration of \( \sim 10^{-2} \) – \( 10^{-4} \) s, during which the X-ray luminosity exceeds \( 10^{38} \) erg s\(^{-1}\), and in some cases even reaches \( 10^{39} \) erg s\(^{-1}\). Herewith the X-ray luminosity between flares is \( 10^{36} \) – \( 10^{38} \) erg s\(^{-1}\).

Transient X-ray source IGR J16195-4945 was discovered by INTEGRAL on September 26, 2003 during the observation of the INTEGRAL observatory, the source showed a flare lasting \( \sim 1.5 \) h with \( F = 34 \) mCrab in \( 20 - 40 \) keV (Sugawara et al. 2006), that made IGR J16195-4945 a SFXT candidate. The near-IR spectroscopy determined that the donor star is ON9.7Iab blue supergiant (Coleiro et al. 2013). This binary system is eclipsing with the orbital period \( \sim 3.945 \) d and an eclipse duration \( \sim 3.5\% \) of orbital period (Cusumano et al. 2016).

**Temporal Analysis**

Figure 1 shows the light curve of the source with a time resolution of 500 s in the 4-20 keV energy range. The light curve clearly shows flares characteristic of SFXTs with duration of few thousand seconds. For further analysis we identified periods of time during which the source was in quiescent (A, C, G), intermediate (E) and active (B, D, F) state. We have also generated light curves in soft (0.4-8 keV) and hard (8-20 keV) energy ranges. The hardness averaged over segments was estimated (the ration of count rates in soft and hard energy ranges). It is noticeable that the radiation becomes slightly harder during flares, but in general it could be concluded that the source demonstrates “colorless” variability known in other SFXTs. Using unbinned events we searched for the presence of periodicities in light curve in the range of 10-1000 s using Epoch Folding method (Leahy et al. 1983). No significant periodicities were found.

**Spectral Analysis**

The spectrum obtained ART-XC was fit with tbabs*cutoffpl model. Measured parameters - power law photon index and folding energy of exponential rolloff - turned out to be close to the values determined by Swift/XRT and Swift/BAT data (Cusumano et al. 2016). However, due to the low coverage of low-energy region, it was not possible to accurately measure absorption from ART-XC data. To obtain broad band energy spectrum we added to ART-XC spectrum the Swift/XRT spectrum of the source when bright states and the averaged source spectrum from the 105-month Swift/BAT catalog.

**Properties of Flares**

The average bolometric luminosity turned out to be less than \( \sim 1 \times 10^{36} \) erg s\(^{-1}\), therefore, Rayleigh-Taylor instability model in accreting plasma near the neutron star magnetosphere (“settling” accretion) can occur in the system (Shakura et al. 2012). This model predicts characteristic properties of flares, such as total energy release and duration. According to the method proposed by Sidoli et al. 2019, the parameters of observed outbursts can be estimated using Bayesian block segmentation of the light curve. These characteristics can be compared with model predictions, for example, the energy released during a flare depends on its duration as \( \Delta E \sim 10^{39} [\text{erg} \cdot \text{s}] \). On Figure 3, the measured properties lie in the region described by the model; therefore, the observed flares in this system can be explained by the “settling” accretion model.