

Preliminary Results on the ASCA X-ray Observation of AE Aquarii

Chul-Sung Choi
Korea Astronomy Observatory

AE Aqr is a magnetic cataclysmic variable consisting of a white dwarf and a late-type companion star of spectral type of $K_3 - K_5$. Optical photometric and spectroscopic studies have established the AE Aqr system as a non-eclipsing binary with an orbital period of 9.88 hrs. It is widely believed that the companion star's atmosphere fills its Roche lobe and the companion donates a matter to the white dwarf through Roche lobe overflow process. Although magnetic field strength is unknown for AE Aqr, it has also been believed that the white dwarf would have a sufficient field strength to control the matter to be accreted onto the magnetic poles of white dwarf. AE Aqr was observed with ASCA on 1995 October 10 from 23:40 UT through 22:57 UT on the following day. For the observation, I acquired raw data through the HEASARC (High Energy Astrophysics Science Archive Research Center) online service, provided by the NASA/Goddard Space Flight Center. Here I report some data analysis results for the X-ray observation.

