

Detection of Multiple Hard X-ray Flares from Sco X-1 with OSSE

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Although recent results have firmly established the presence of hard X-ray emission from low luminosity low mass X-ray binaries (e.g. X-ray bursters), high luminosity LMXB are generally associated with relatively soft spectra. In 5 weeks of observation of the high luminosity LMXB Sco X-1, the OSSE instrument on CGRO has observed three episodes of hard X-ray flaring, during which the source spectrum displays a definite hard X-ray tail extending to as much as 200 keV. The tail, which diverges from the low-energy spectrum above 80 keV, is consistent with power-law shapes with photon index between 2.5 and 3. The flaring episodes last a few days and may have a relatively high duty cycle. We will present the observational evidence for these flares and discuss some of the implications they have for models of luminous LMXB emission.