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Title:	Observations of bright stars with AstroSat soft X-ray telescope
Authors:	Singh, K P (/jspui/browse?type=author&value=Singh%2C+K+P)
Keywords:	bright stars AstroSat soft X-ray telescope
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Abstract:	We present observations of four bright stars observed with the AstroSat Soft X-ray Telescope (SXT). Visible light from bright stars like these can leak through the very thin filter in front of the CCD in the focal plane CCD camera of the SXT and thus making the extraction of X-ray events difficult. Here, we show how to extract the X-ray events without contamination by the visible light. The procedure applied to four bright stars here demonstrates how reliable X-ray information can be derived in such cases. The sample of bright stars studied here consists of two A spectral types (HIP 19265, HIP 88580), one G/K giant (Capella), and a nearby M-type dwarf (HIP 23309). No X-ray emission is observed from the A-type stars, as expected. X-ray spectra of Capella and HIP 23309 are derived and modeled here, and compared with the previous X-ray observations of these stars to show the reliability of the method used. We find that optical light can start to leak in the very soft energy bands below 0.5 keV for stars with V=8 mag. In the process, we present the first X-ray spectrum of HIP 23309.
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