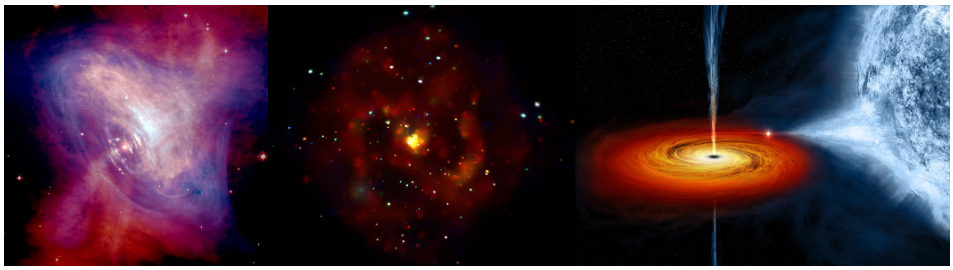

Contribution ID: **114** Type: **not specified**

Multi-wavelength study of the AGN MCG-2-58-22 with AstroSat

Tuesday, April 4, 2023 9:40 AM (15 minutes)

We study the multi-wavelength properties of the bare Seyfert 1.5 galaxy MCG-2-58-22 using the multi-epoch AstroSat observations taken simultaneously in the X-ray and UV bands. Previous studies reported X-ray variability in MCG-2-58-22 on both short and long time scales. The source was in a high X-ray flux state in 2007 and 2016 with a 2-10 keV flux of ~5×10^-11 erg/cm^2/s. The AstroSat monitoring observations show clear X-ray spectral and flux variability over three years with a softer-when-brighter behaviour. The far UV (FUV) emission is also variable and correlates with X-ray flux and hard X-ray photon index (Γ). By incorporating the archival data from other missions, we investigate the long-term spectral and temporal evolution of X-ray and UV emission components from the source. The multi-wavelength (optical/UV-to-X-ray) SED analysis of these observations using various physical models like JED-SAD and optxagnf provides us insights on the inner disc geometry of the source. We also study the origin and evolution of the unusually weak soft X-ray excess in MCG-2-58-22.

Presentation Type

Oral

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