

Long-term Be disc/neutron interaction of the peculiar Galactic Be X-ray binary, MAXI J0903-531

Be X-ray binaries, which make up the largest subclass of the high mass X-ray binary systems, comprise a neutron star in an eccentric orbit around Be star companion with a geometrically thin Keplerian disc. The interaction of the neutron star with the Be disc results in the accretion of matter leading to X-ray outbursts. The X-ray outbursts occur in two flavours: Type I (or normal outbursts, with luminosities less than 10^{37} erg./s) and Type II (or giant outbursts, with luminosities greater than 10^{37} erg./s). The disc variability is traced through the variability of the Balmer emission lines in the optical spectra, the strongest and best-studied of which is the H-alpha emission line.

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