

*Contributed Talk //*

X-ray and Gamma-Ray Binaries (XRBs)



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X-ray binary stars are interacting stellar systems that give off multiwavelength emission, with a significant fraction observed at the high energy X-ray portion of the electromagnetic spectrum. Depending on the nature of the donor star, X-ray binaries are generally classified into low-mass X-ray binaries (for systems that have a late-type donor, with mass  $< 1 M_{\odot}$ ) and high-mass X-ray binaries (for cases where the donor is an early-type with mass  $> 10 M_{\odot}$ ). Companions with masses in between these extremes, the intermediate-mass X-ray binaries, are rare due to short mass transfer timescales and weak stellar wind outflow. In this talk I will present analysis of data of a peculiar X-ray binary system, 4U 1210-64, which has previously been misclassified as a cataclysmic variable and high-mass X-ray binary. I will demonstrate that, based on the spectra obtained SALT, 4U 1210-64 is a member of the intermediate X-ray binary star subclass. I will also discuss the physical implications of the eclipse profiles seen in both the X-ray and optical lightcurves.