

*Poster Presentation //*

X-ray and Gamma-Ray Binaries (XRBs)



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Gamma-ray binaries are a subclass of high-mass binary systems consisting of a compact object (neutron star/black hole) and an O- or B-type stellar companion. They emit across the electromagnetic spectrum, with a characteristic energy spectrum that peaks above 1 MeV. To date, there are only nine objects in this class. 1FGLJ1018.6-5856 and LMC P3 were discovered in 2011 and 2016, respectively. We are using observational radio data from MeerKAT and archival X-ray and Gamma-ray from Swift and Fermi space telescopes to study these two sources. The main objective of the study is to: I) Conduct a radio analysis for these sources, II) Discern the localization of the multi-wavelength emission and whether it is produced by the same set of particles. The results of the study will shed light on the dominant emission mechanism in the sources, which will provide evidence about the type of compact object in these binaries (i.e., whether we have a neutron star or black hole).