

Multi-wavelength study of large-scale outflows from the Circinus galaxy

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The Circinus galaxy is a composite starburst/Seyfert galaxy which exhibits radio lobes inflated by kpc scale outflows along its minor axis. Its proximity (4 Mpc) makes it a unique target to study the physical nature of these outflows. We investigate if they originate from nuclear star formation activity or if they are jets from an active galactic core. The MeerKAT radio observations allow us to study the morphology of the arcminute lobes of the Circinus galaxy. In this work, a multi-wavelength analysis of this system is conducted using the available MeerKAT observations and Fermi-LAT data, to aid in the understanding of the origin of these structures. The results are also compared to the star-formation driven Fermi bubbles in the Milky Way, which have also been observed in both the gamma-ray and the radio bands to determine physical similarities between these structures.

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