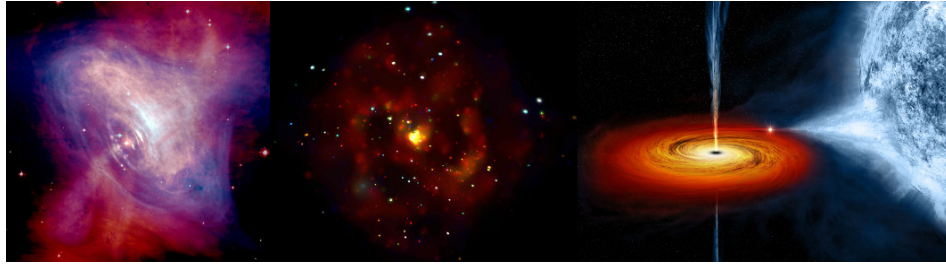


National conference on REcent Trends in the study of Compact Objects  
(RETCO-V): Theory and Observation



Contribution ID: 95

Type: not specified

## Tracing the evolution of ultraluminous infrared galaxies into powerful radio-loud galaxies

*Tuesday, April 4, 2023 11:55 AM (15 minutes)*

Ultraluminous infrared galaxies (ULIRGs) are gas-rich merger remnants that are extremely luminous at infrared wavelengths, represent the final stage of the merging process of two comparable mass gas-rich galaxies that finally evolve into elliptical galaxies, and in some cases radio-loud AGN. Using the Giant Metrewave Radio Telescope (GMRT), we observed a large sample of ULIRGs that have optically identified AGN. This data has been combined with archival multifrequency radio observations to understand their radio spectra, spectral ages, and resolved structures. Deep, low frequency observations show marginal extension for few sources. However, the integrated radio spectra of many ULIRGs show characteristics that are similar to that of GHz Peaked Spectrum (GPS), Compact Steep Spectrum (CSS) or young radio sources. According to the commonly accepted evolutionary scheme of radio-loud AGN, GPS and CSS radio sources are the early stages of the evolution. In this talk, I will discuss about these ULIRGs which are the possible progenitors of the powerful radio-loud galaxies.

### Presentation Type

Oral

**Primary author:** NANDI, Sumana (Manipal Centre for Natural Sciences, Manipal Academy of Higher Education)

**Presenter:** NANDI, Sumana (Manipal Centre for Natural Sciences, Manipal Academy of Higher Education)

**Session Classification:** AGNs & Blazars

**Track Classification:** AGNs and Blazars