# Where the active galaxies live: a panchromatic view of radio-AGN in the AKARI-NEP field

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**Abstract.** We study the host galaxy properties of radio sources in the AKARI-North Ecliptic Pole (NEP) field, using an ensemble of multi-wavelength datasets. We identify both radio-loud and radio-quiet AGN and study their host galaxy properties by means of SED fitting. We investigate the relative importance of nuclear and star-formation activity in radio-AGN and assess the role of radio-AGN as efficient quenchers of star-formation in their host galaxies.

**Keywords.** galaxies: active, galaxies: evolution, galaxies: starburst

## 1. The Project and Results

We construct broad-band SEDs (UV to 24$\mu$m; Fig. 1) for 48 radio sources at 1.5GHz with optical spectra in the AKARI-NEP field (Lee *et al.* 2009). Following Trichas *et al.* (2012), we fit an AGN and a starburst component additively to each SED. The fractional contribution and luminosities of both components are derived.

We see a trend for decreasing contribution of active nuclei with increasing radio luminosity (3$\sigma$ difference between lowest and highest luminosity bins; Fig. 1). The most radio-loud systems show hints for lower star-formation activity than otherwise expected.
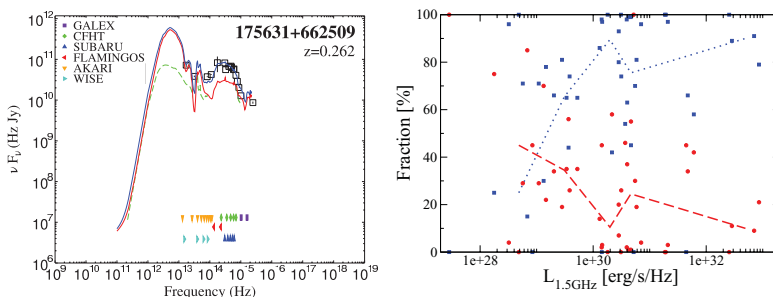


**Figure 1.** Example SED (left). Fractional contribution of AGN (red) and starburst (blue) components versus radio luminosity (right), for individual (symbols) and average values (lines).

## References

Lee, H. M., Kim, S. J., Im, M., *et al.* 2009, *PASJ*, 61, 375
Trichas M., Green P., Silverman J. D., *et al.* 2012, *ApJS*, 200, 17