

# “A complete sample of the brightest, extragalactic radio-sources in the southern sky – ideal for detailed active-galaxy studies in the SKA era, and without an orientation bias”

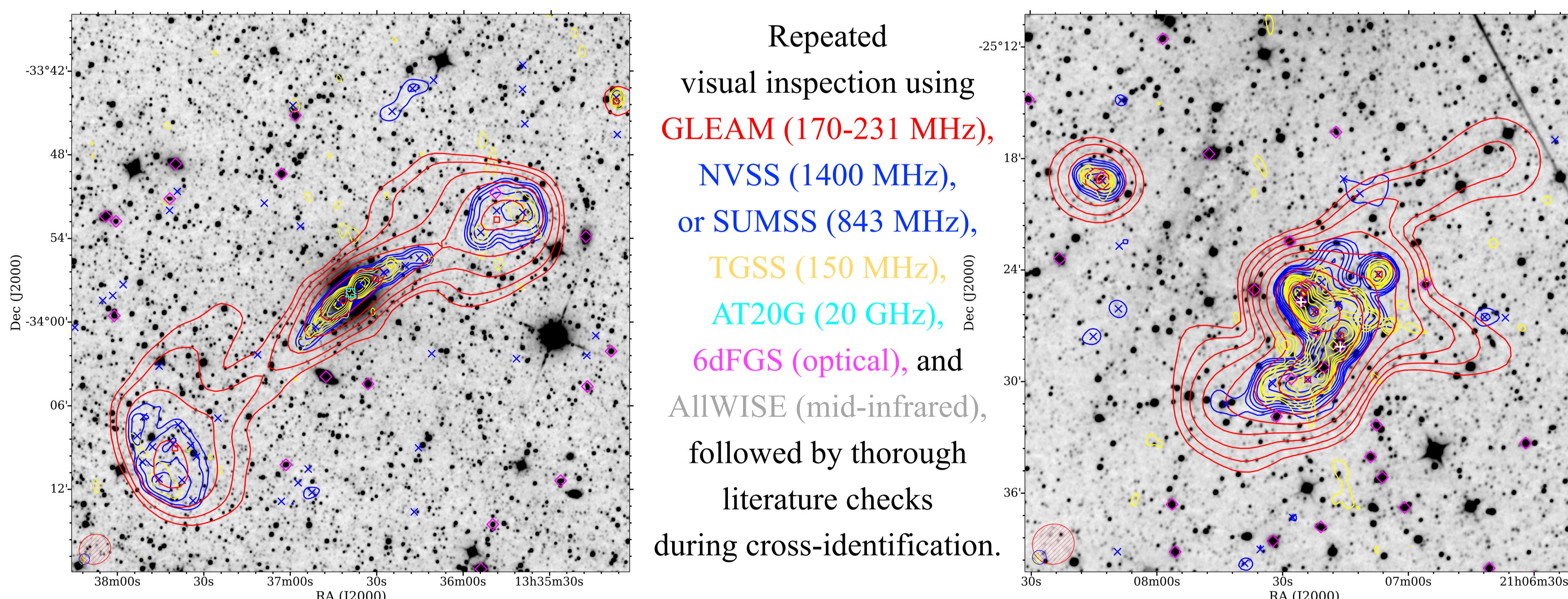


## The GLEAM 4-Jy (G4Jy) Sample:

### I. Definition and the catalogue

### II. Host-galaxy identification for individual sources

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- Mid-infrared identifications for **86% of the sample (1,606 sources)**
- 129 sources with ambiguous hosts, including four sources where we question the existing identification
- 126 sources with a host that is faint or uncharacterised in the mid-infrared

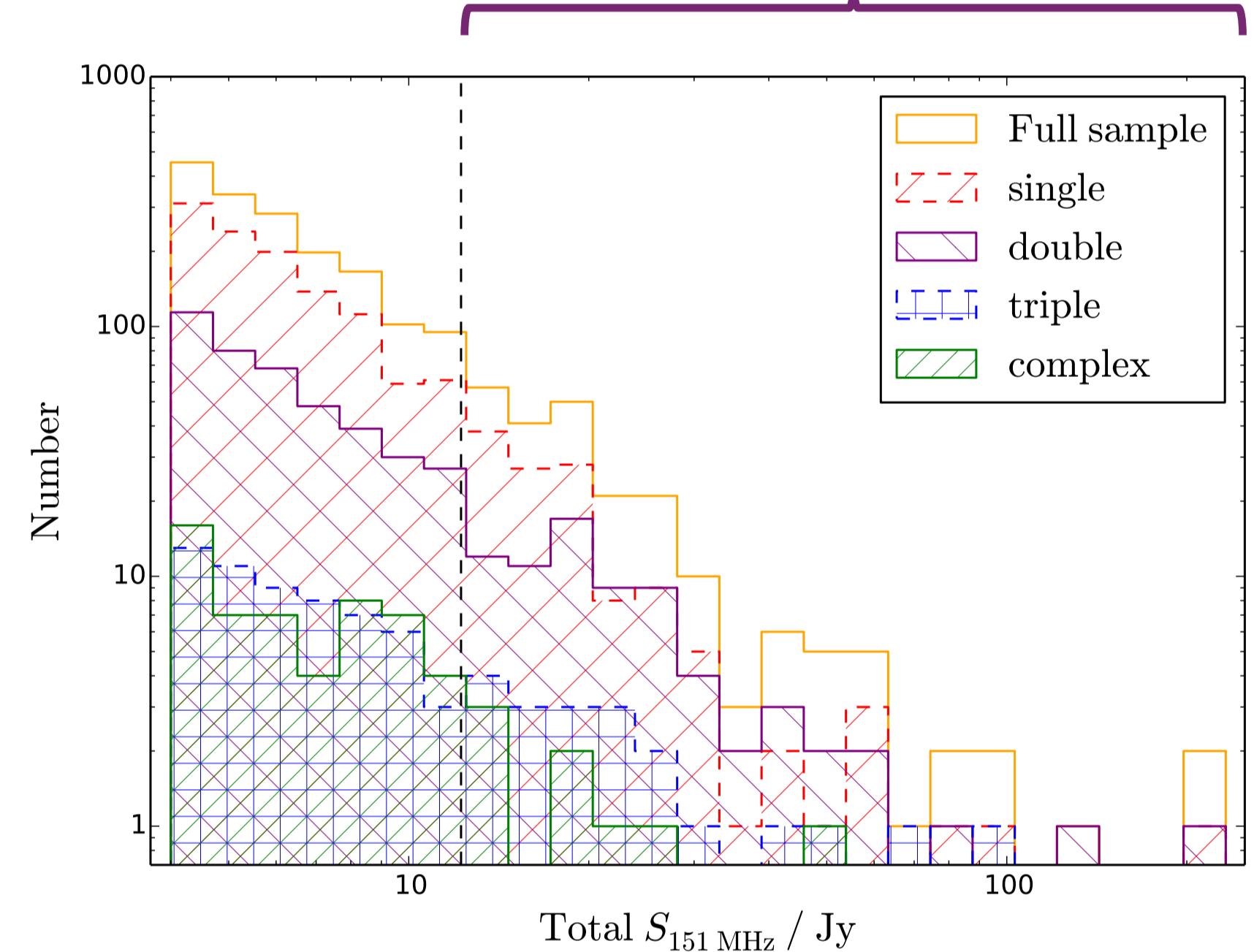
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### The G4Jy Sample includes:

- At least 8 giant radio-galaxies ( $>1$  Mpc)
- 14 S-/Z-/X-shaped radio sources
- 23 bent-tail radio-galaxies
- 18 head-tail radio-galaxies
- Two nearby, star-forming galaxies
- The Flame Nebula
- A cluster relic and a halo

140 sources with MeerKAT follow-up (PI: White)

**A catalogue of 1,863 sources with integrated  $S_{151 \text{ MHz}} > 4 \text{ Jy}$ .** For reference, the revised Third Cambridge Catalogue of Radio Sources (3CRR; Laing et al. 1983) contains 173 active galaxies with  $S_{178 \text{ MHz}} > 10.9 \text{ Jy}$ .

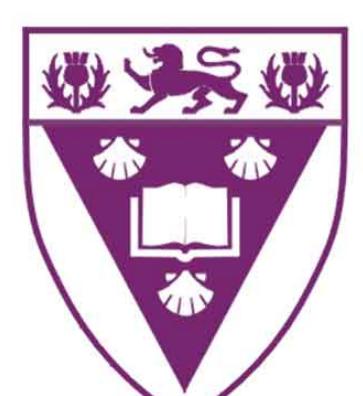


Our **morphology** classification is mostly based upon 45'' resolution radio-images at  $\sim 1$  GHz. We also provide **total flux-densities** at multiple frequencies, and **spectral indices**, in the G4Jy catalogue.

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sample  
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<https://arxiv.org/abs/1810.01226>



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