Counterparts of CORNISH Sources

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- Comparison with GLIMPSE
- Comparison with 6 cm from White et al. (2005)
- Comparison with 20 cm from White et al. (2005)

Counterparts in GLIMPSE

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- Initial CORNISH source catalogue with threshold of 3 mJy/beam that avoided high noise regions
- I.e. biased away from massive star forming complexes
- Cross-matched with GLIMPSE point source catalogue using 2 arcsec matching radius
- There about 650 matches to the 2300 CORNISH sources
- Of these only about 150 have detections in all IRAC bands

GLIMPSE colour-colour diagram

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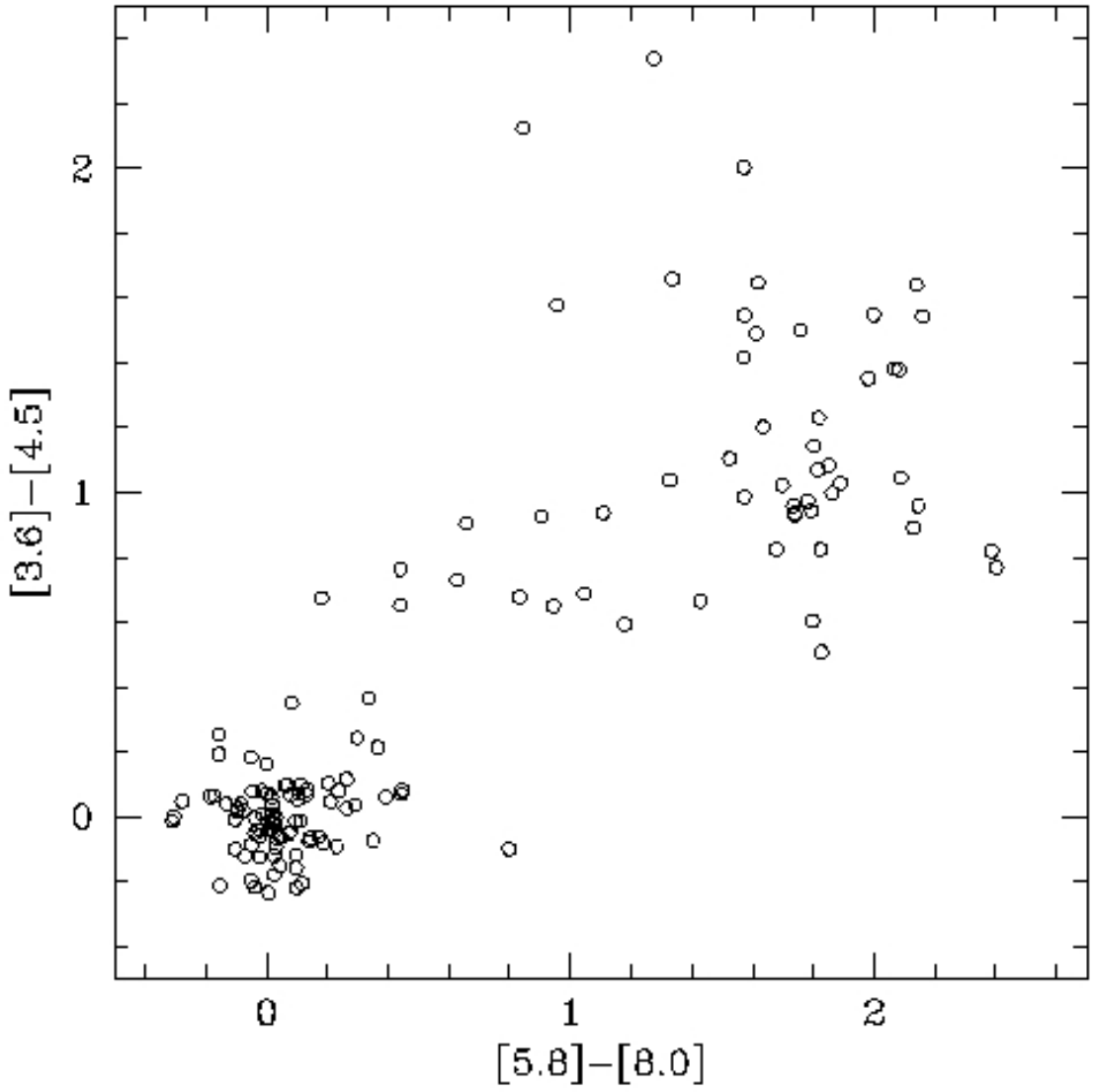

Example red source

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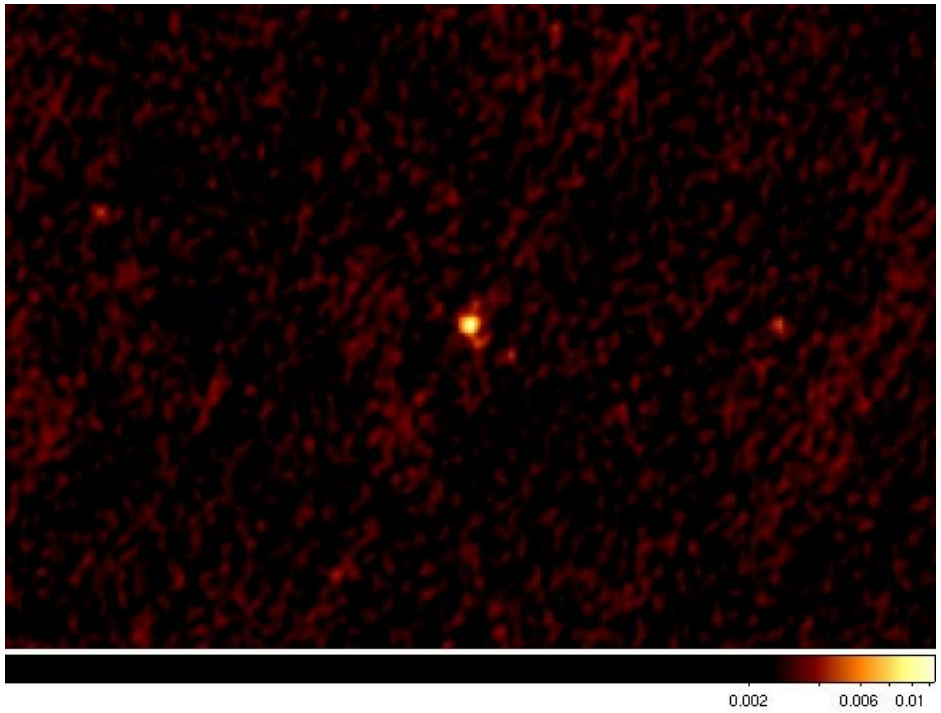
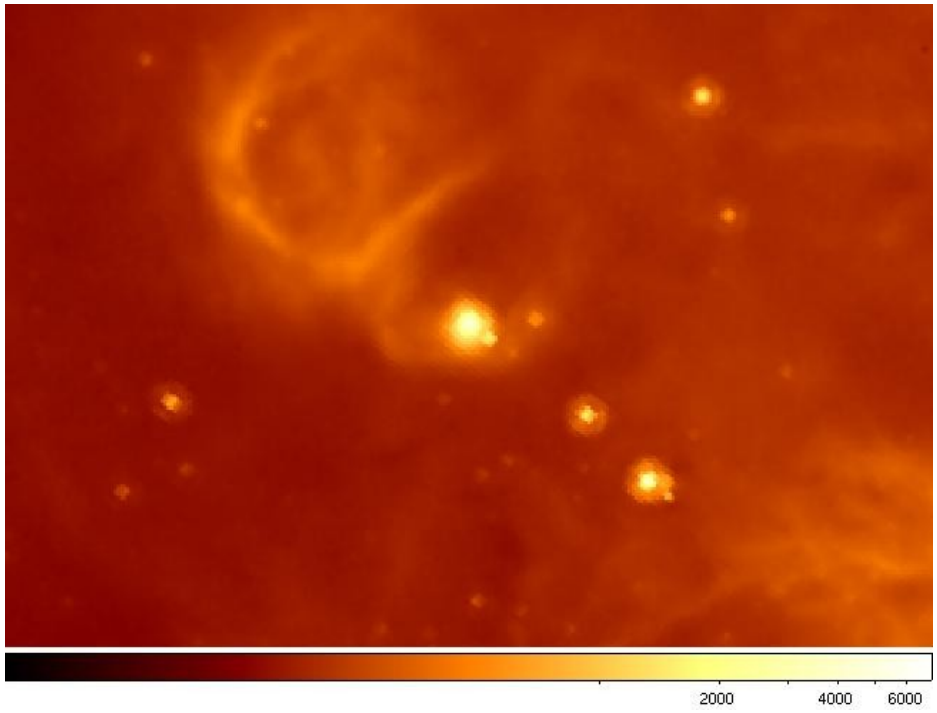
G25.7157+0.048 UCHII region





CORNISH

GLIMPSE

Example red source

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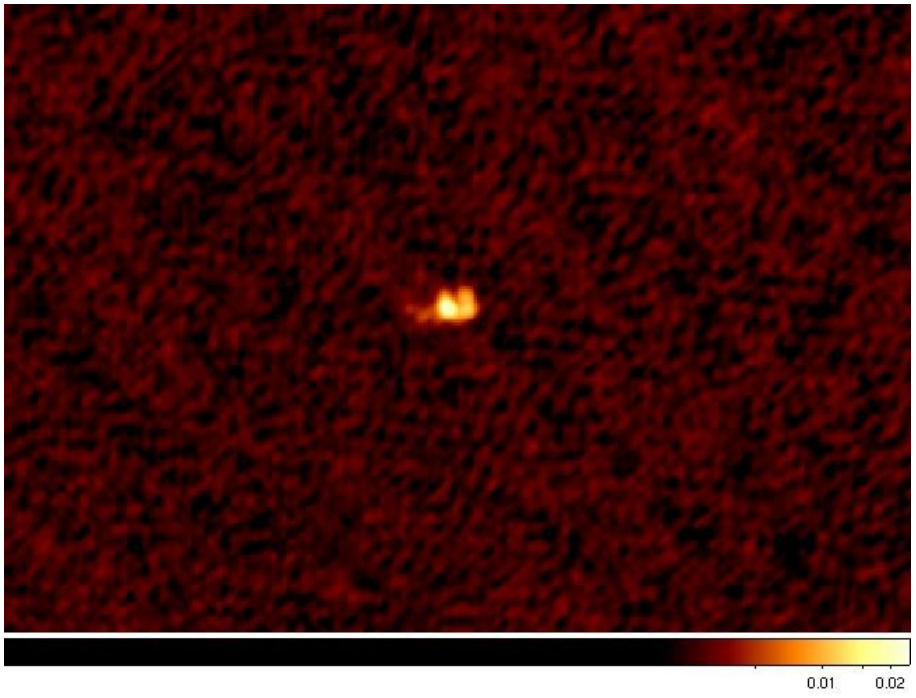
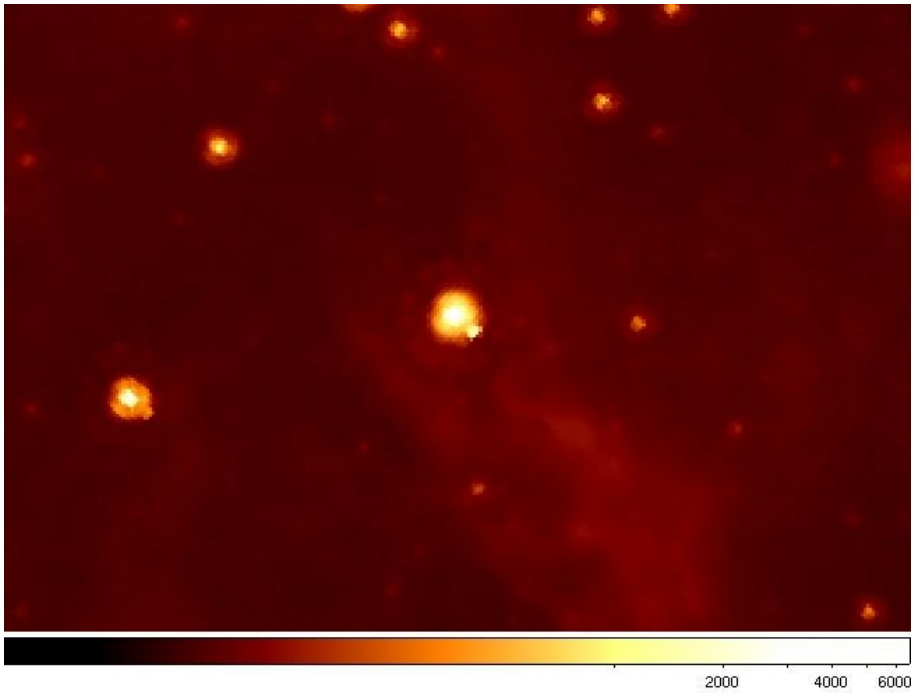
G34.8624-0.0629 UCHII region





CORNISH

GLIMPSE

Example blue source

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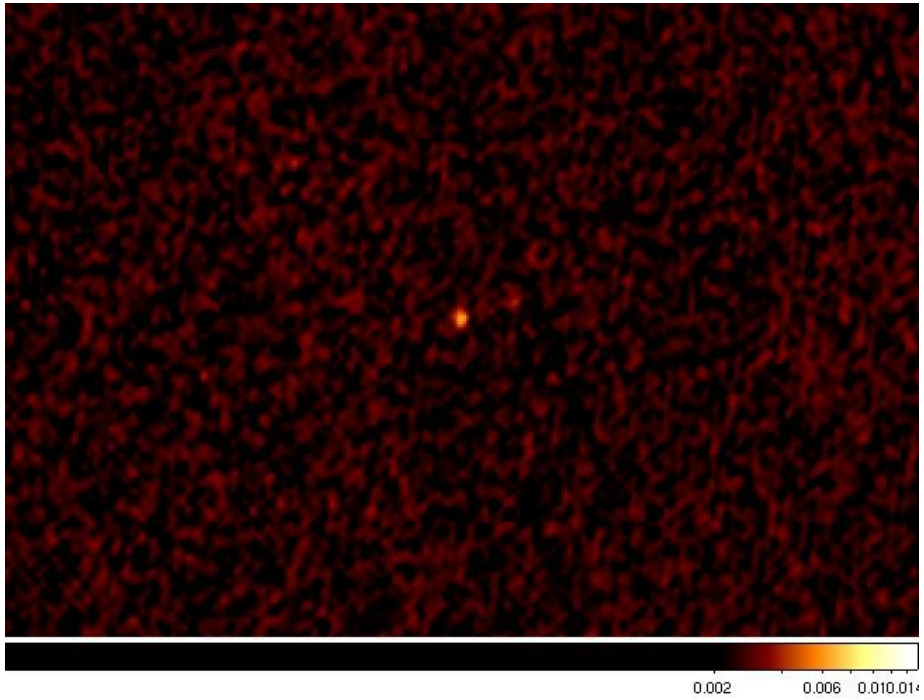
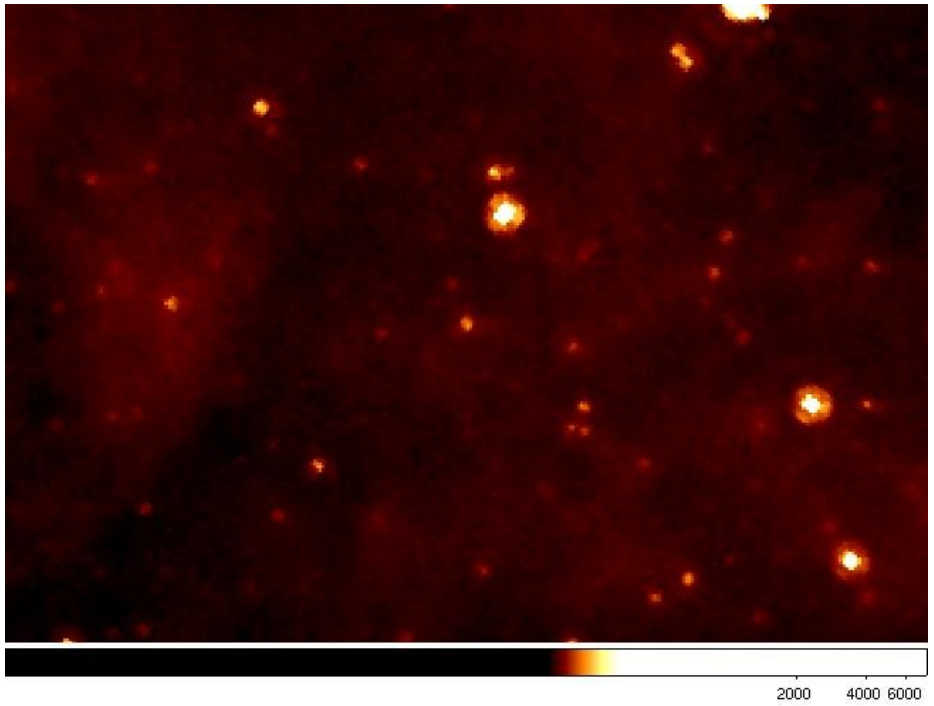
G26.0083+0.1369 ?



CORNISH



GLIMPSE

Radio/IR versus mid-IR colour

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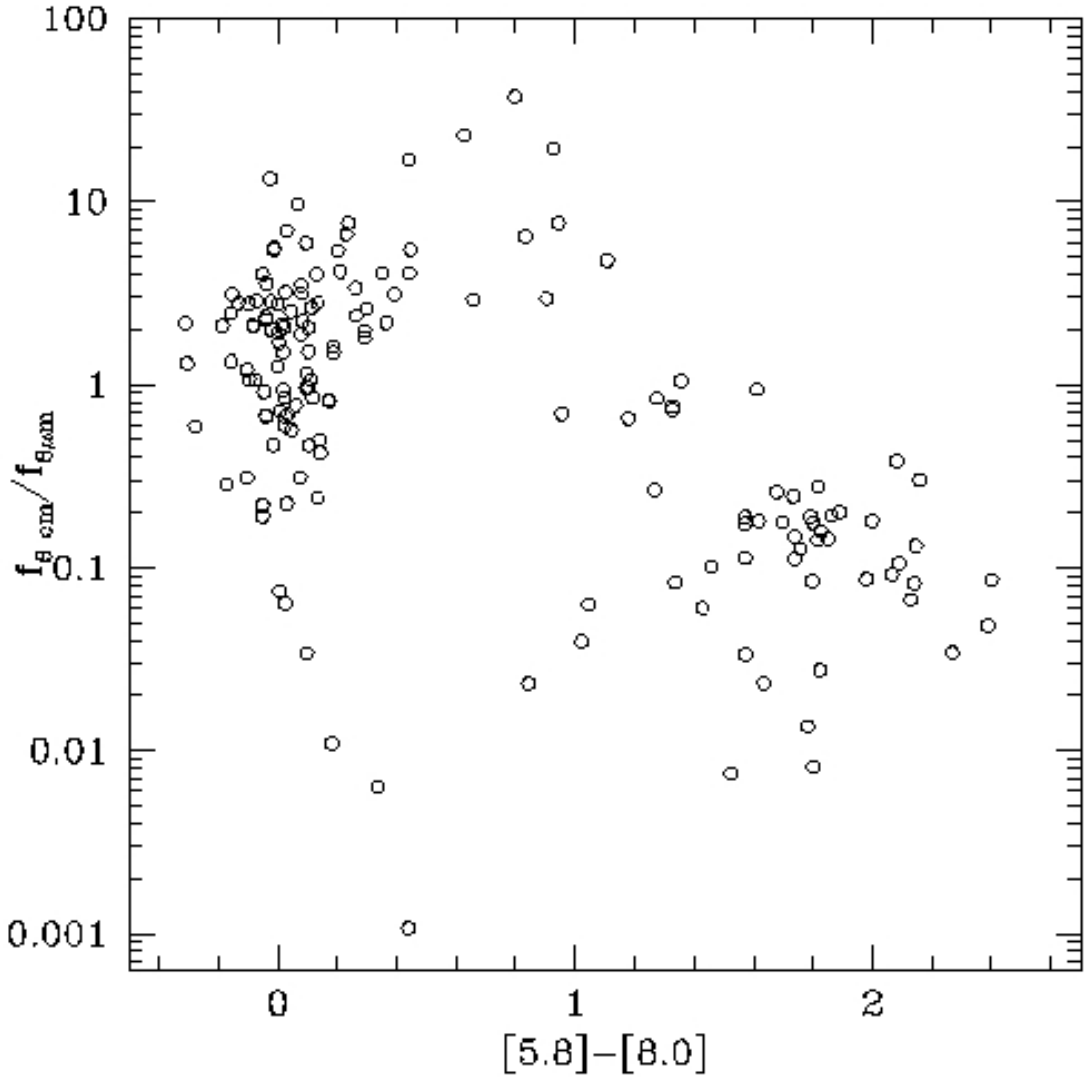
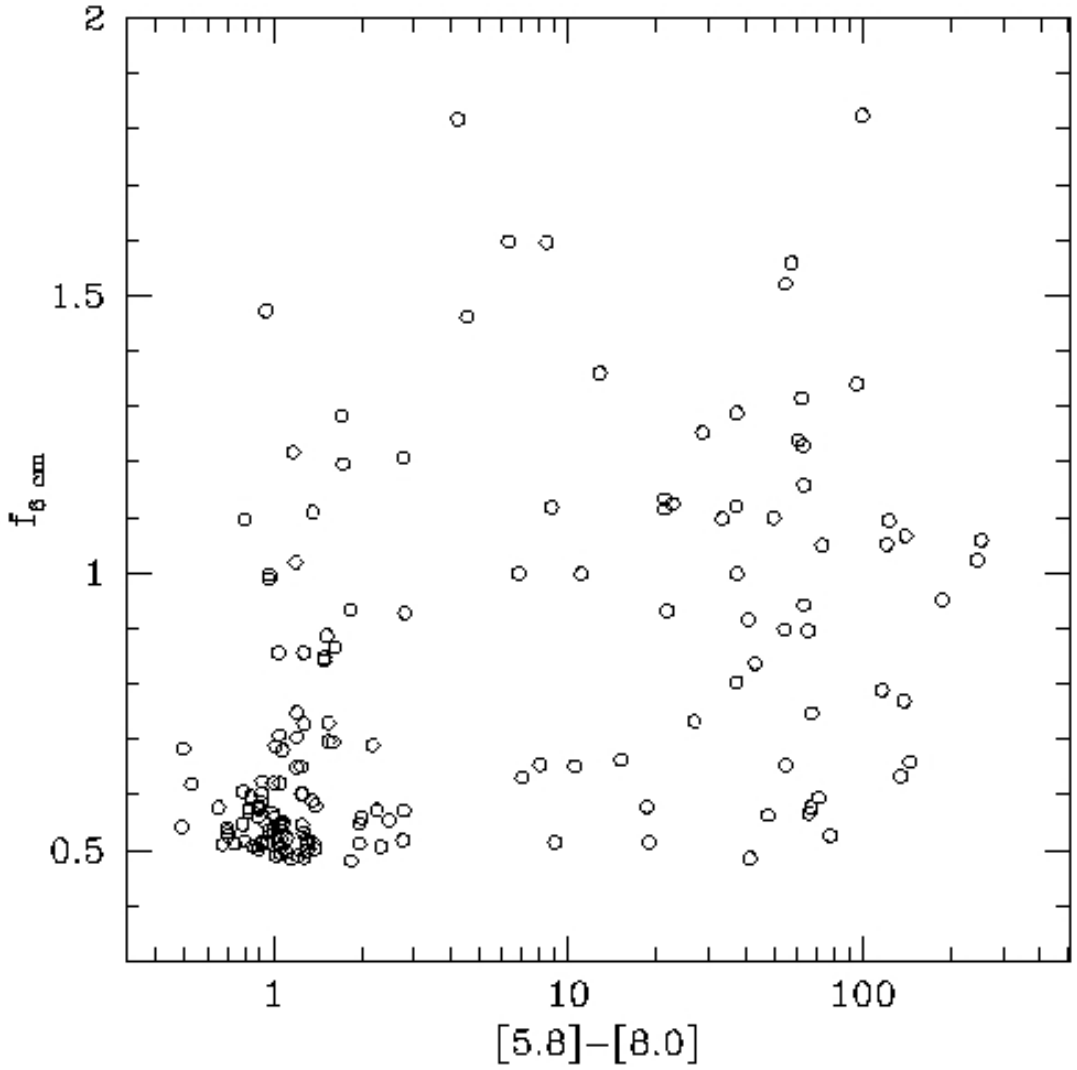


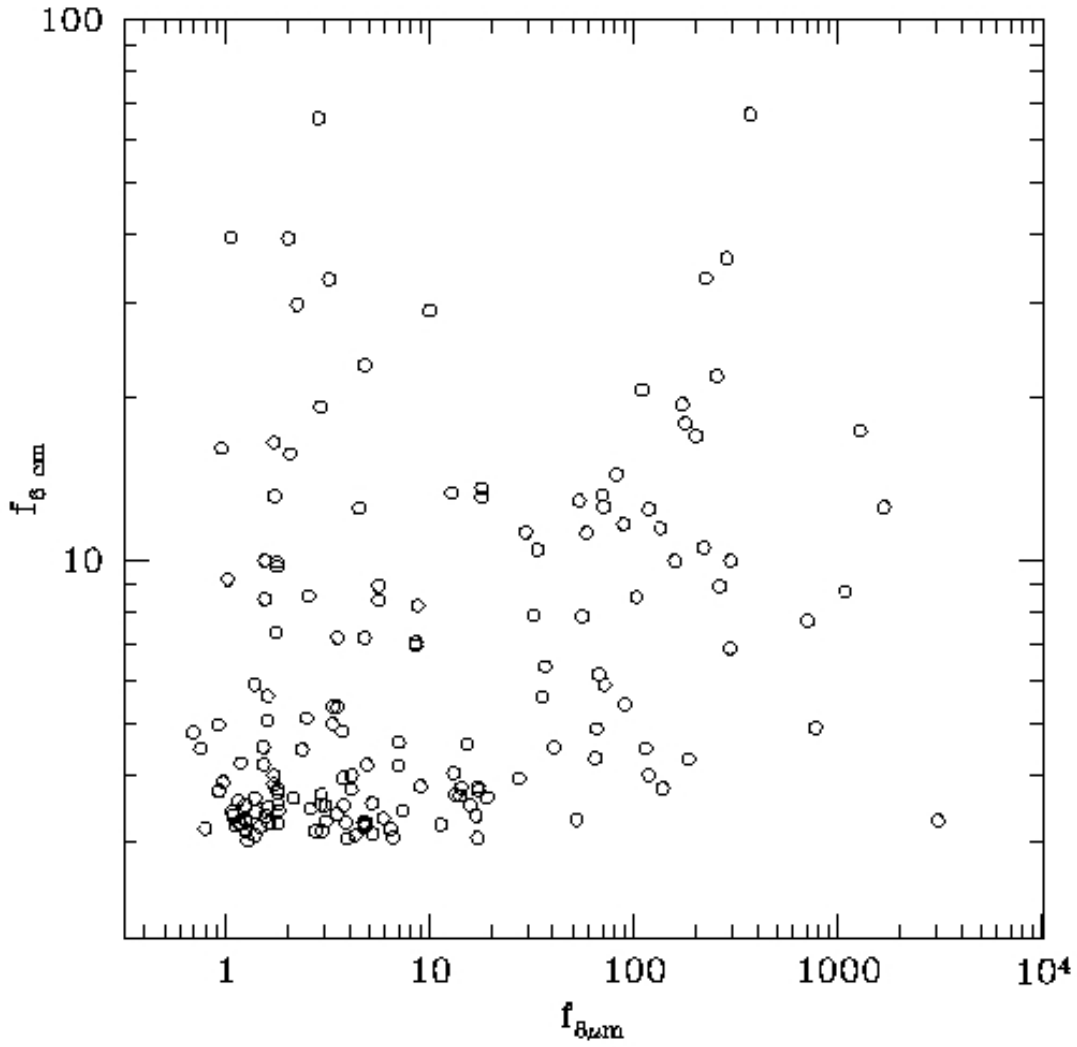
Radio flux versus mid-IR colour

UNIVERSITY OF LEEDS



Radio flux versus mid-IR flux

UNIVERSITY OF LEEDS



Extra-galactic sources?

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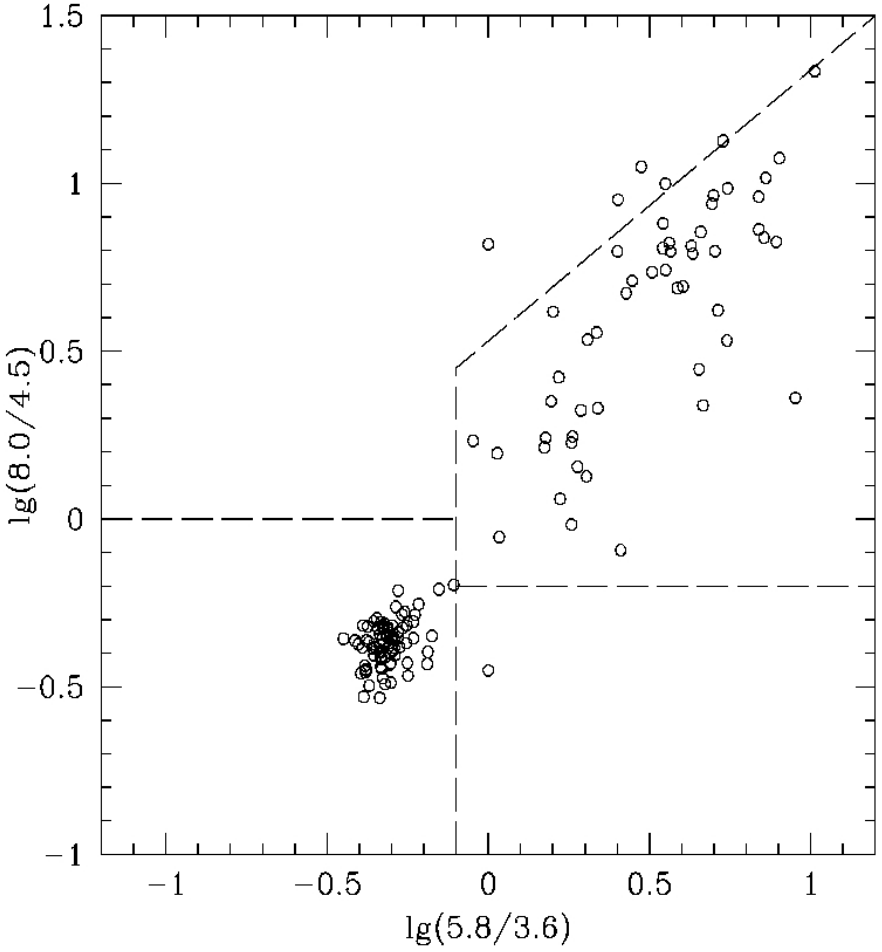

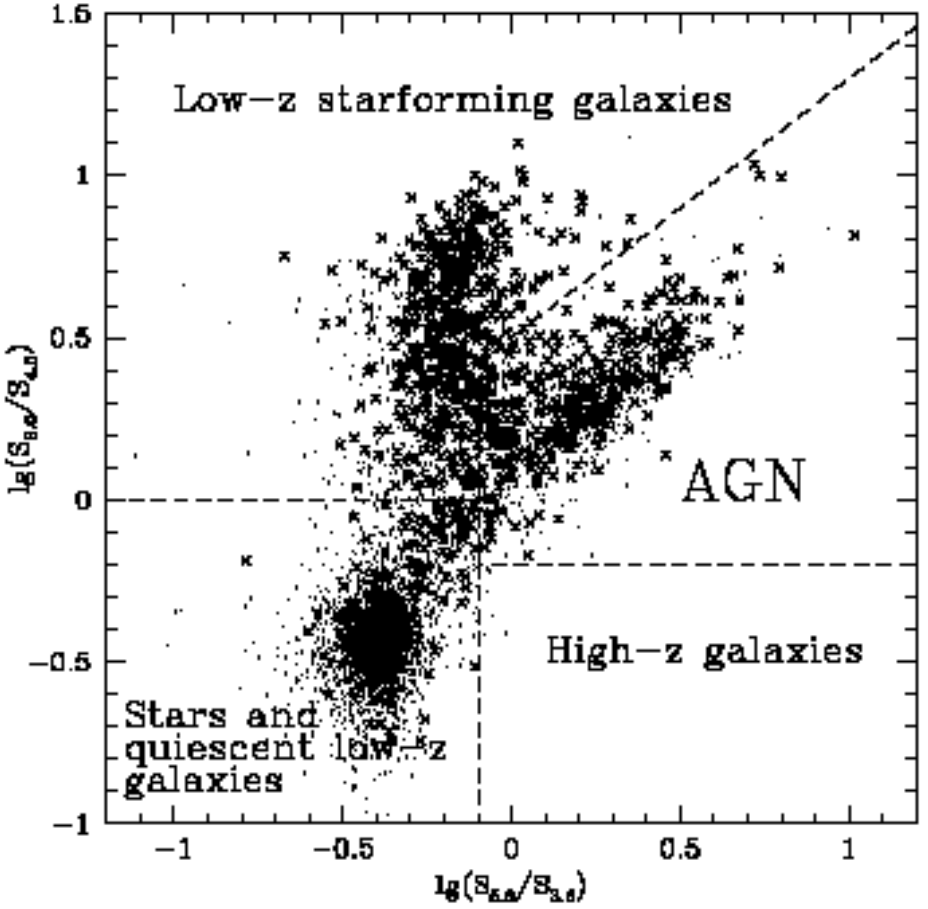

Spitzer FLS/VLA 1.4 GHz Lacy et al

Extra-galactic sources?

UNIVERSITY OF LEEDS

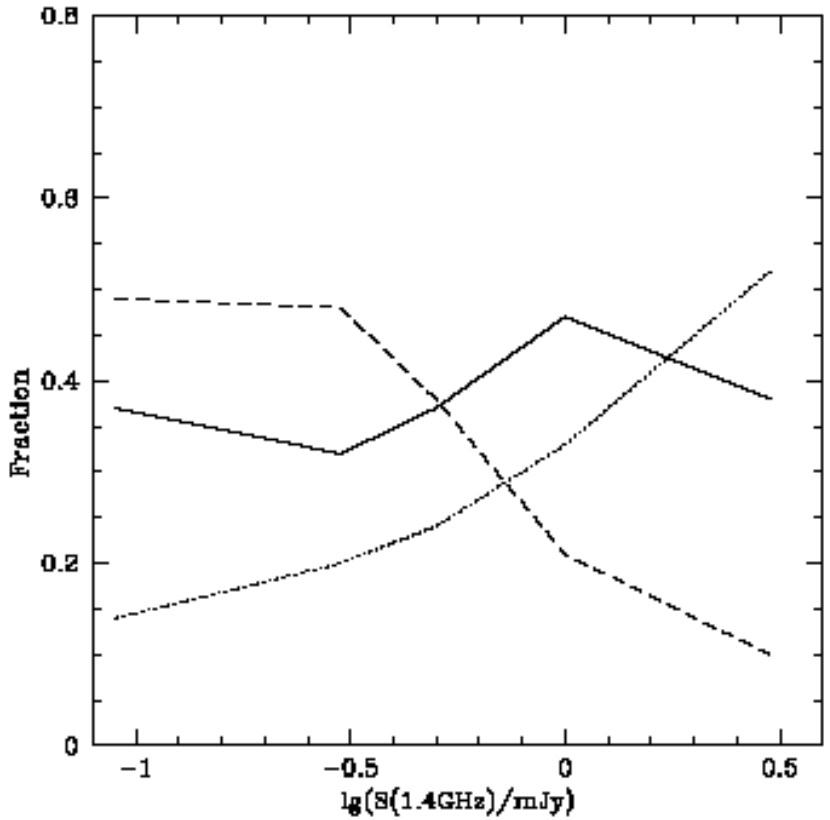

Fig. 2. The variation of the IRAC-detected VLA source population with 1.4 GHz flux limit. *Solid line*: the fraction of objects classified as AGN in Fig. 1; *dashed line*: the fraction classified as low-z star-forming galaxies; *dotted line*: fraction classified as stellar-dominated.

Radio Counterparts

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- Cross-matched with the radio catologues of White et al. (2005)
- These supersede somewhat those of Zoonematkermani et al (1990) at 20 cm and Becker et al. (1994) at 6 cm.
- Have not compared to the multi-configuration MAGPIS data as yet ($5<l<32$, $|b|<0.8$, 1.5 mJy
- Cross-matched using Vizier with a 2 arcsec radius
- Only considered unresolved CORNISH sources

White et al. 6 cm survey

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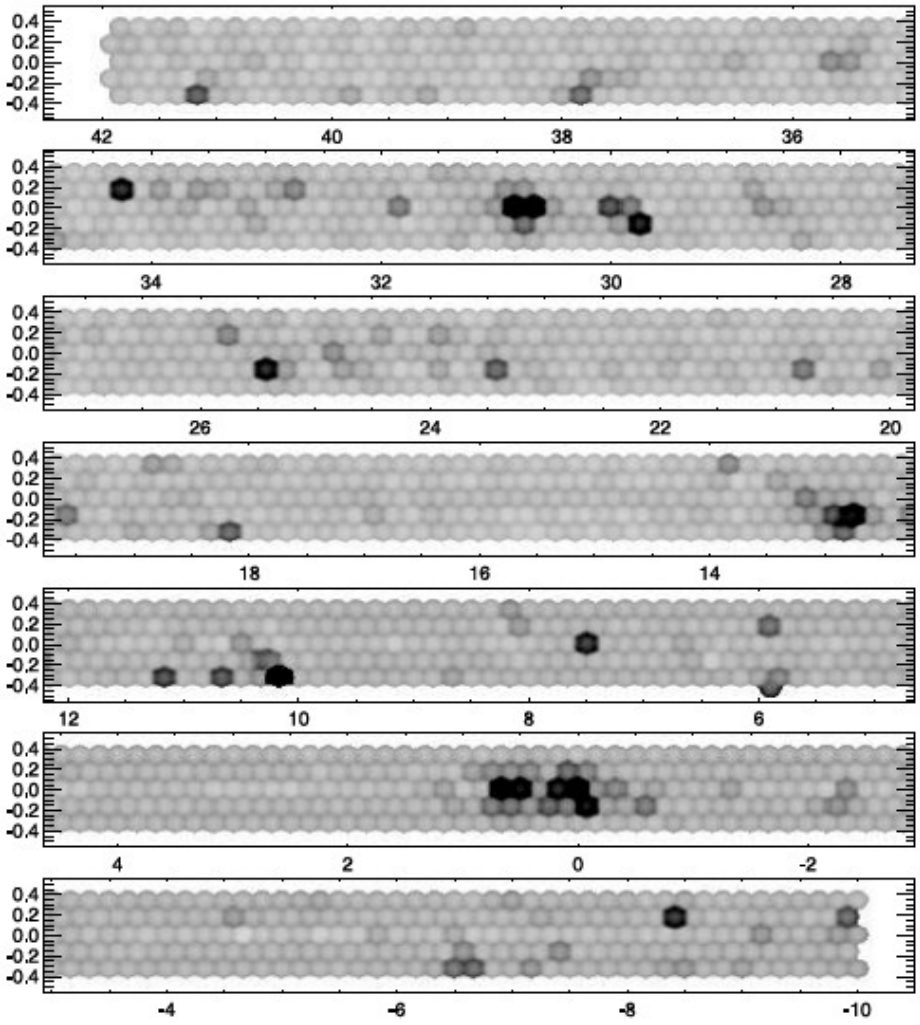

VLA 6 cm C configuration

90% completeness of 2.9 mJy

6 cm comparison

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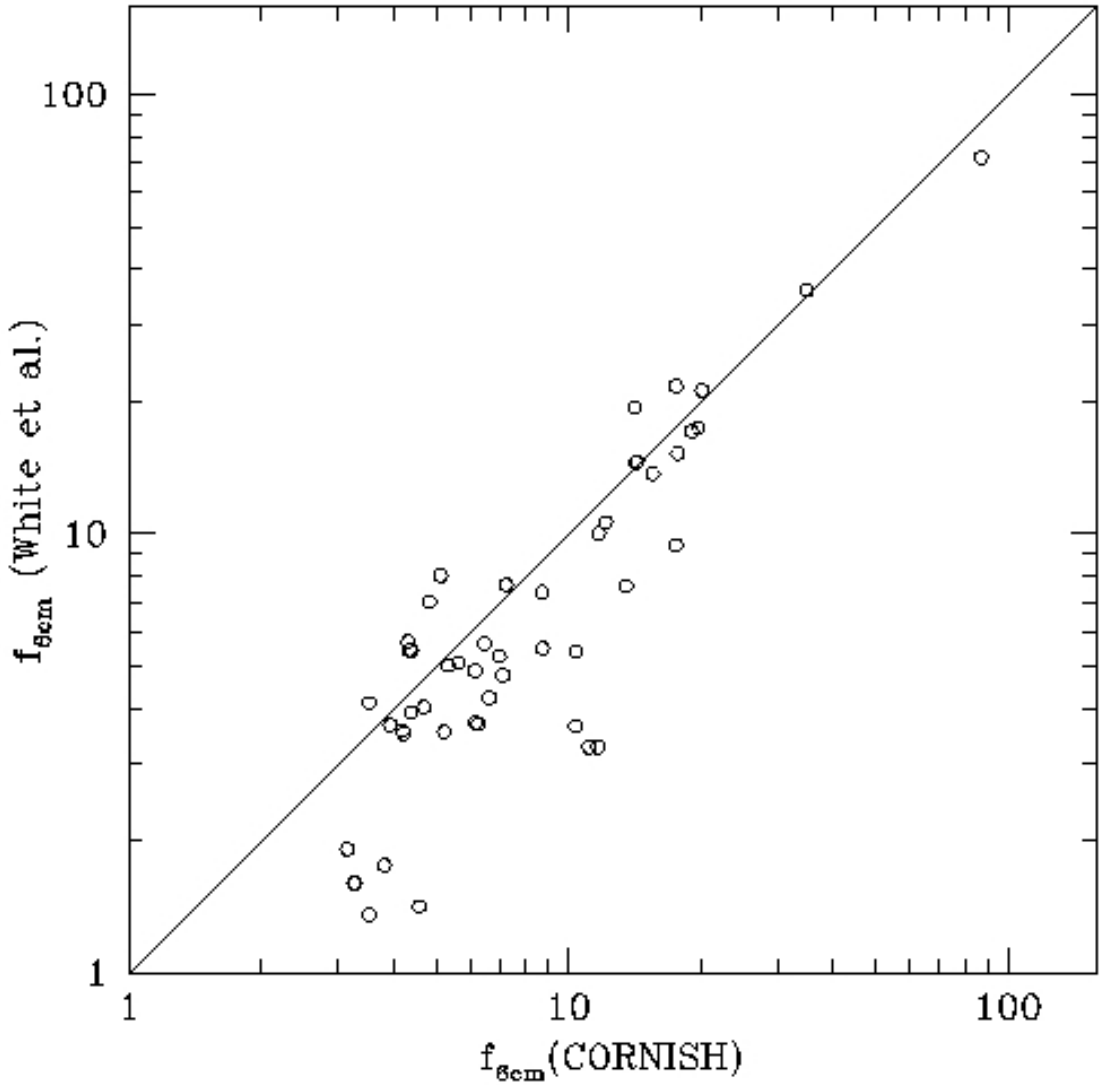
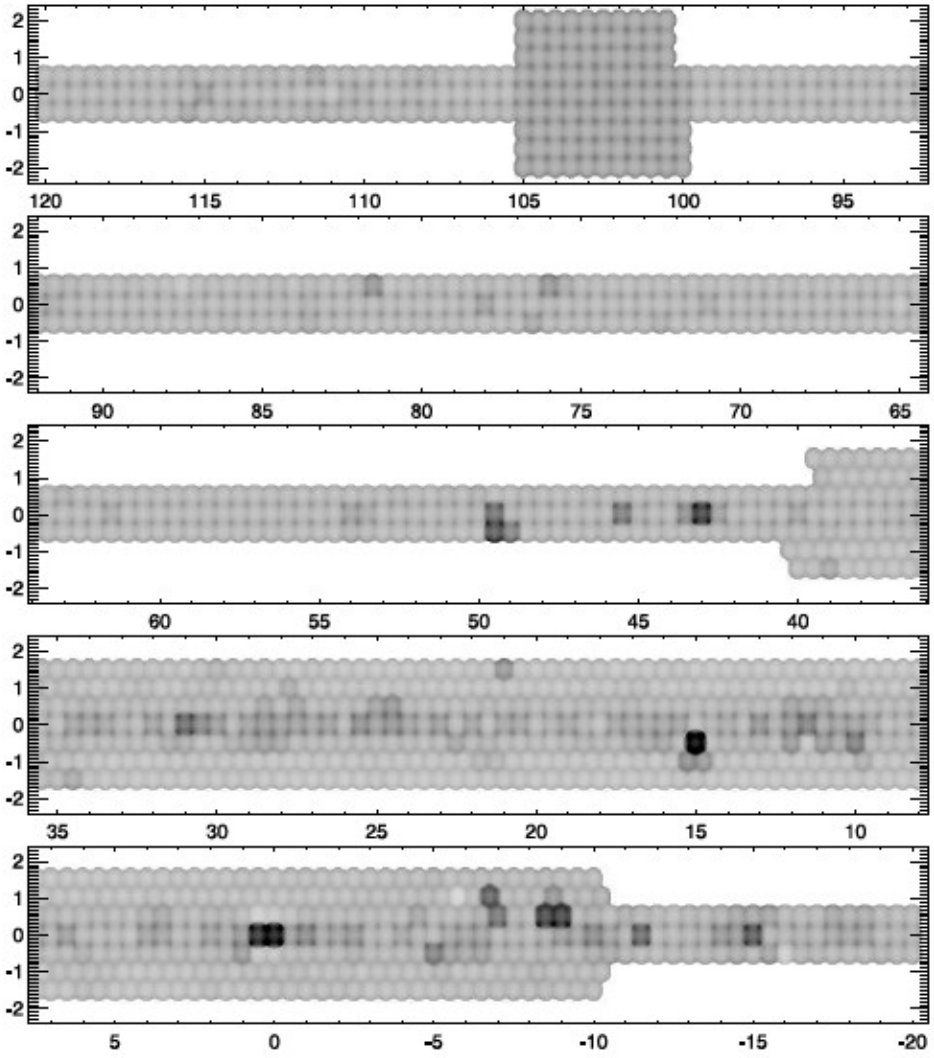


White et al. 20 cm survey

UNIVERSITY OF LEEDS



VLA 20 cm B configuration

90% completeness of 13.8 mJy

Spectral Indices

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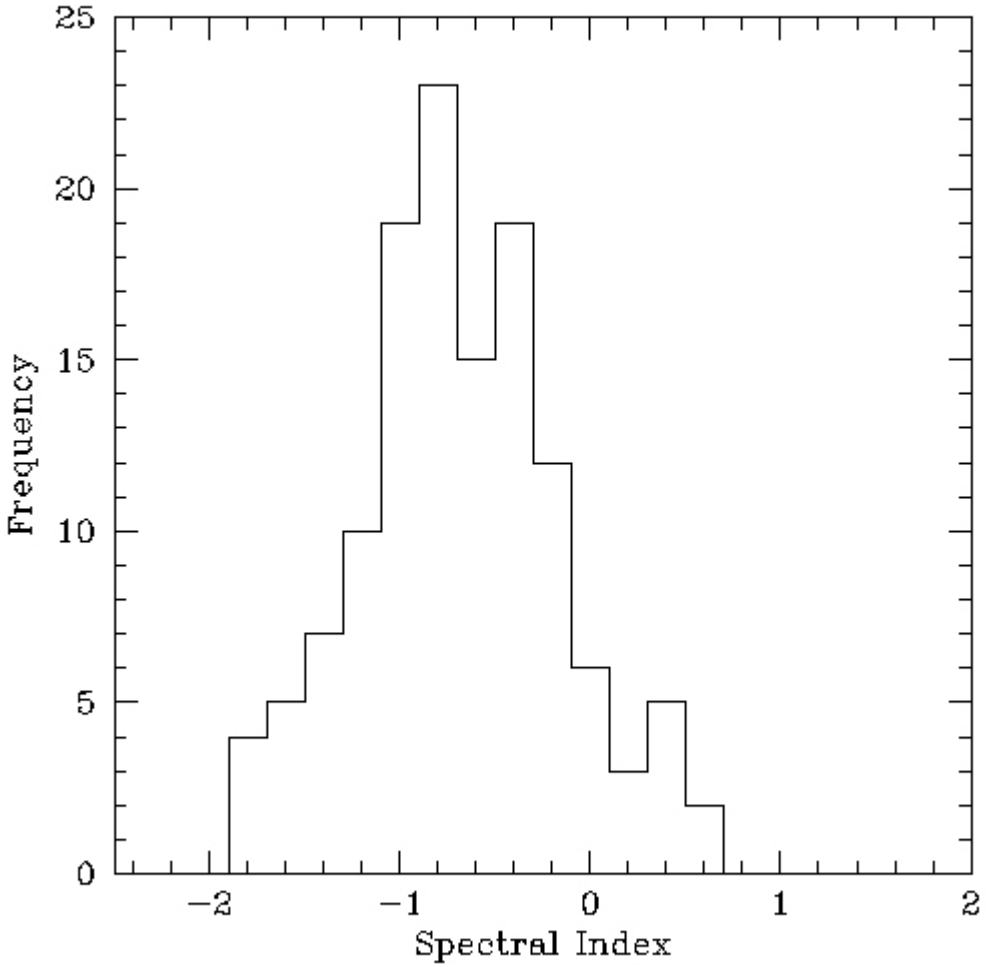

20 cm comparison

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