

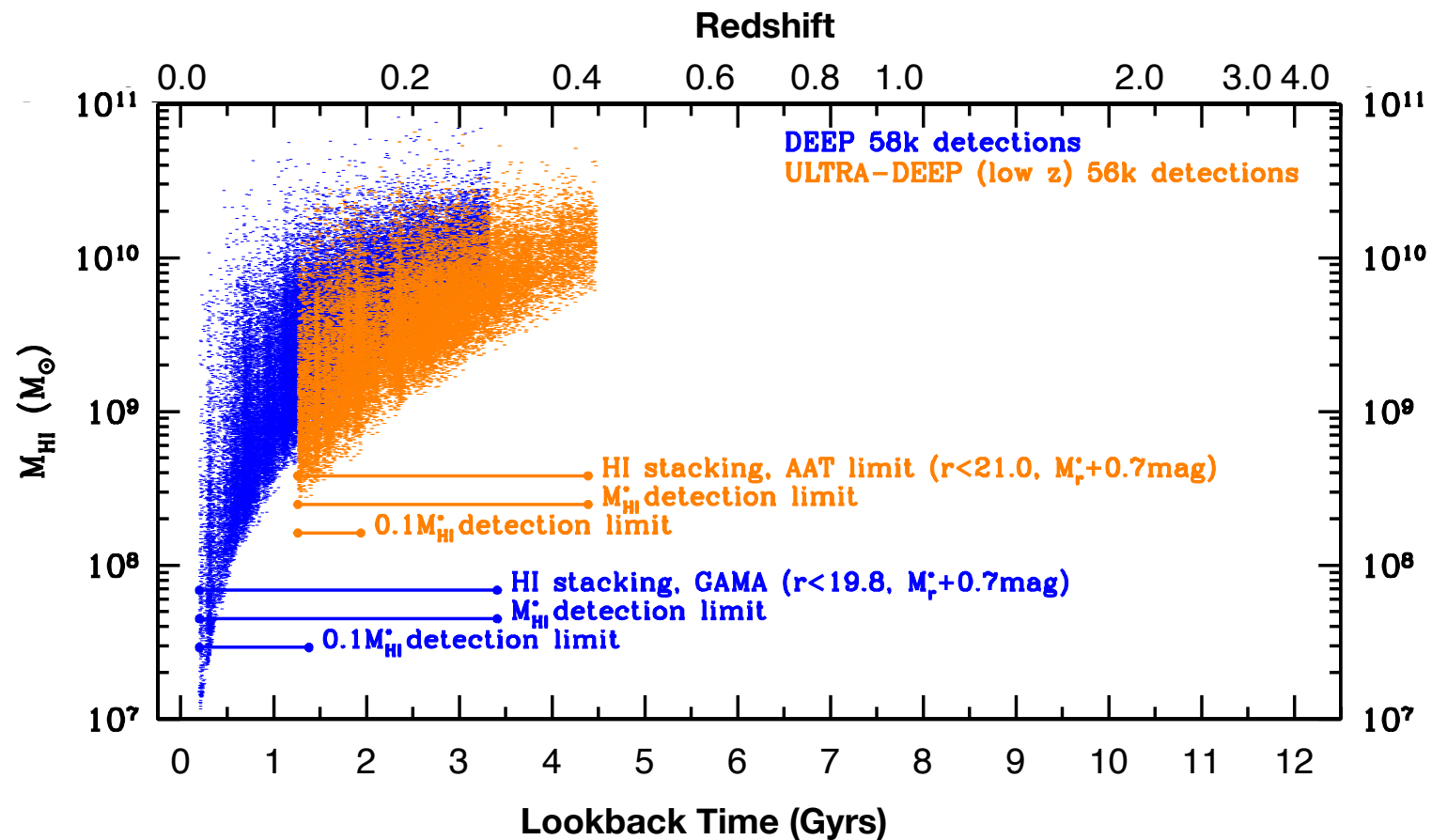
DINGO: Exploring the Evolving HI Universe



DINGO Observations

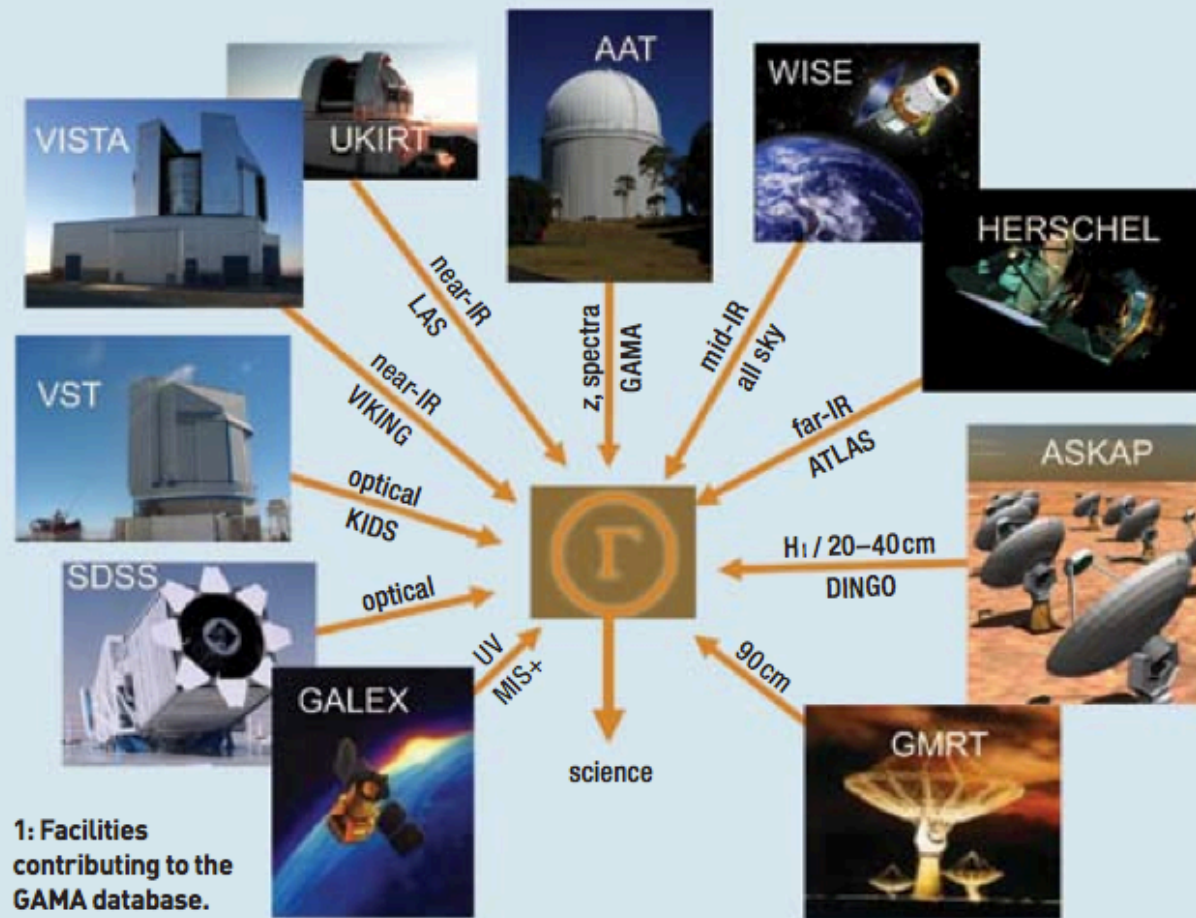


- **Deep**: 150 deg², 1120-1420 MHz, 500 hours/pointing
- **Ultradeep**: 60 deg², 990-1290 MHz, 2500 hours/pointing



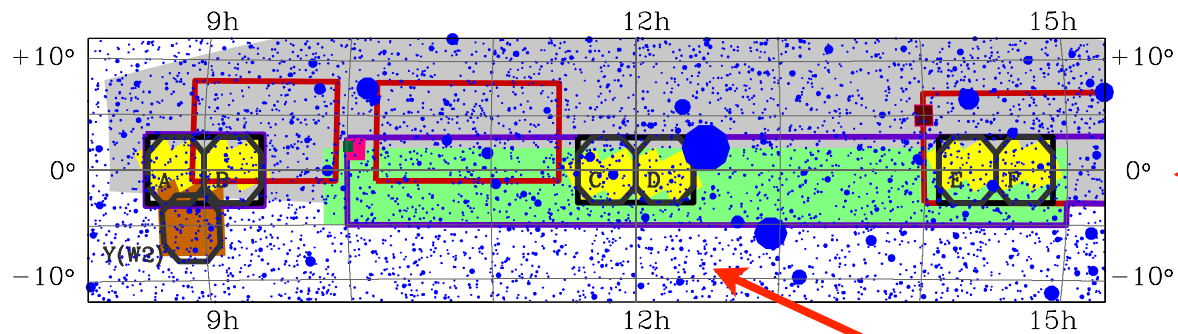
Multiwavelength Data - GAMA

FACILITIES CONTRIBUTING TO THE GAMA DATABASE

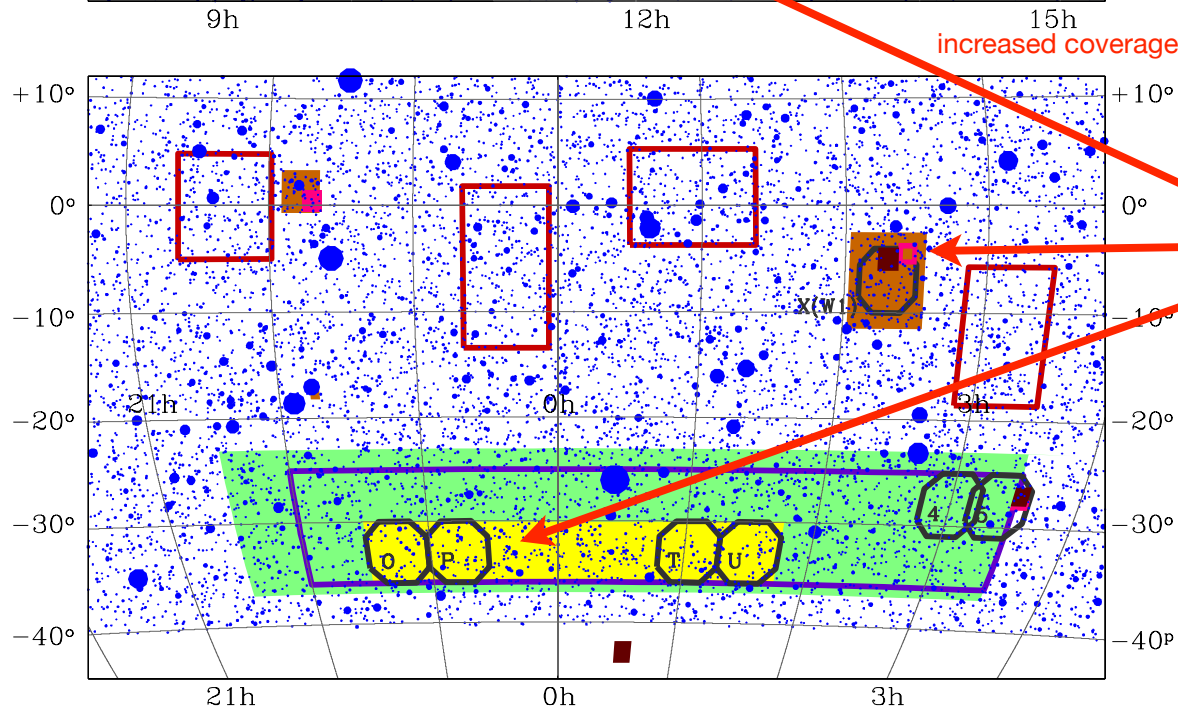


1: Facilities contributing to the GAMA database.

DINGO Fields



← GAMA I complete



increased coverage: 5x12 deg²

GAMA II commenced:

24 nights 11A,
on-going
status

- | | | | |
|-------------|--------------|---------|------------|
| ASKAP/DINGO | NVSS >100mJy | VVDS | VIDEO |
| H-ATLAS | WiggleZ | CFHT-LS | UKIDSS-LAS |
| KIDS/VIKING | 2dFGRS | | |

DINGO & Deep Continuum



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EMU-Deep:

ASKAP Instantaneous FOV	30 square degrees
Area of survey	A single ASKAP pointing of 30 sq. deg.
Synthesised beamwidth	10 arcsec FWHM
Frequency range	700-1000, 1000-1300, and 1500-1800 MHz
Rms noise	1 μ Jy (target)
Surface brightness sensitivity	0.006K rms
Total integration time	4500 hours
Number of sources	500 000

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EMU-Deep Goals



- To explore and develop techniques for extracting the maximum information from deep and potentially confused radio images.
- To identify rare or specific populations through techniques involving radio spectral index measurement, prior information based on complementary data, and probabilistic analysis.
- By using such a population of extended radio sources, assess the AGN mechanical feedback and environmental impact on the intergalactic medium, and determine the role it plays in the quenching of galaxy growth in luminous ellipticals at redshift $z=1-2$.
- To trace the evolution of strongly star-forming galaxies from $z=6$ to the present day, and quiescent star forming systems from $z=1$, using a wavelength unbiased by dust or molecular emission.
- To trace the evolution of super-massive black holes throughout the history of the Universe, and understand their relationship to star-formation.
- To explore an uncharted region of observational parameter space, almost certainly finding new classes of object.