

As a community resource we make available catalogues for both surveys with the sky coordinates (RA and Dec.), redshift and observed redshift (i.e. including peculiar motion) as well as the stellar, halo, cold gas and H I mass and finally the velocity width of the system. This catalogue will be invaluable in guiding survey preparations for Tully–Fisher studies, velocity field probes as well as correlation function investigations to best utilize the formidable resource that ASKAP will represent for a wide range of astronomical fields.

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APPENDIX A: H I SURVEY LIGHT CONES

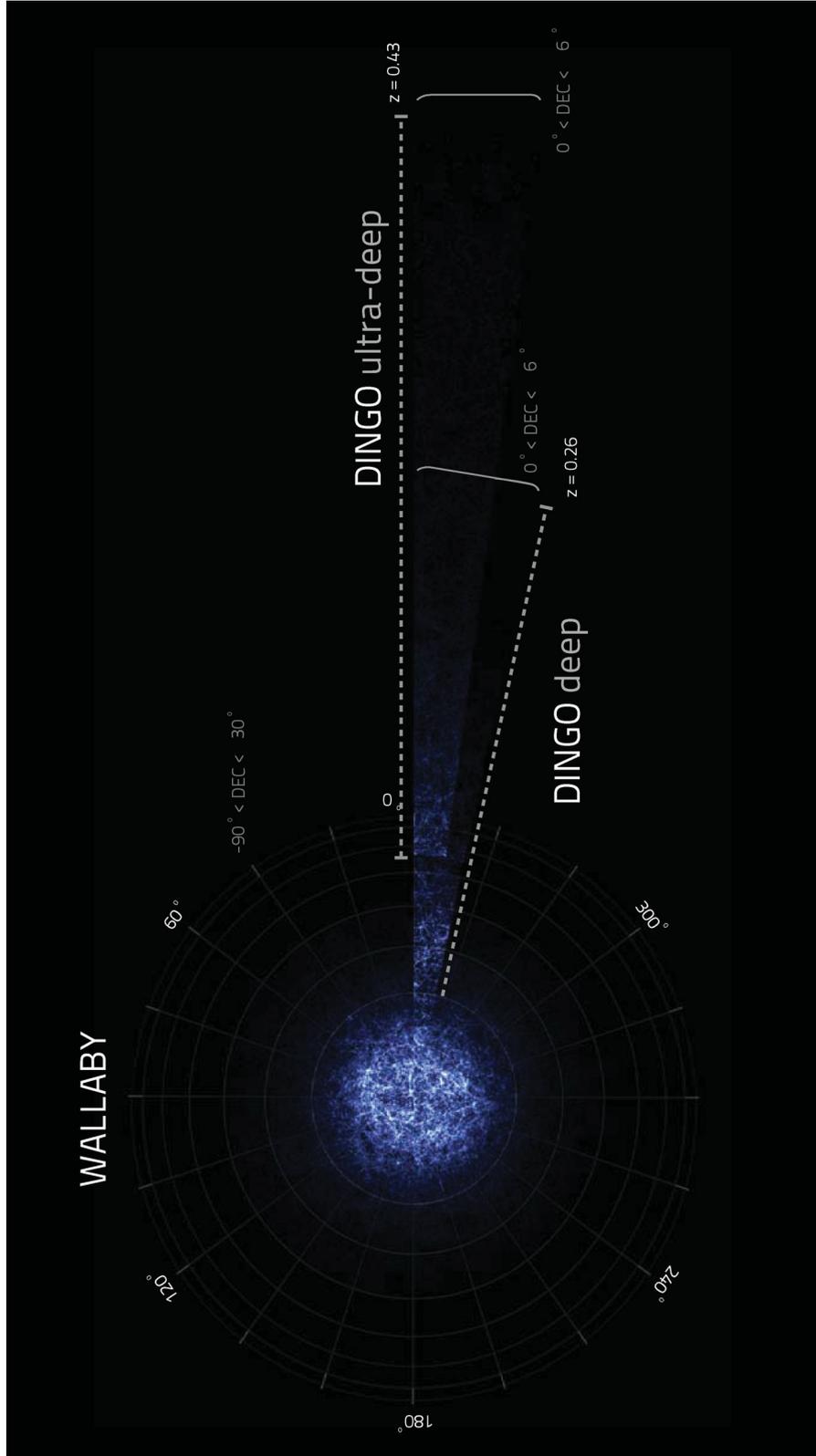


Figure A1. The light cone pie-plot for the shallow all-sky survey WALLABY and the two deeper surveys from DINGO. We have taken the entire declination range of the survey and projected it on to a redshift-RA 2D plot. Brightness is based on the number density of the sources in each map pixel. The cosmic web is clearly visible in this image, a key science driver of WALLABY is the measurement of the H I mass function in different environments. In this volume are over 0.6 million galaxy detections, which can be compared with HIPASS and ALFALFA which had approximately two orders of magnitude fewer detections. The DINGO survey will probe evolution in the high-mass end of the H I mass function over 4 billion years of cosmic time. Additionally, DINGO will overlap with existing GAMA fields to enable a wealth of multiwavelength data to be used when analysing the H I detections; as well as enabling H I spectral stacking at given optical spectroscopic redshifts to extend the H I detections. We reiterate that the DINGO fields are not actually contiguous as pictured here, but in fact are spaced across the sky. For the mock light cone we made the simplifying assumption that the fields were contiguous, this had no impact on the final number of galaxies predicted. High-resolution versions of this image and fly-through movies are available at <http://tct.icrar.org/store/Movies/Duffy12c/>.

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