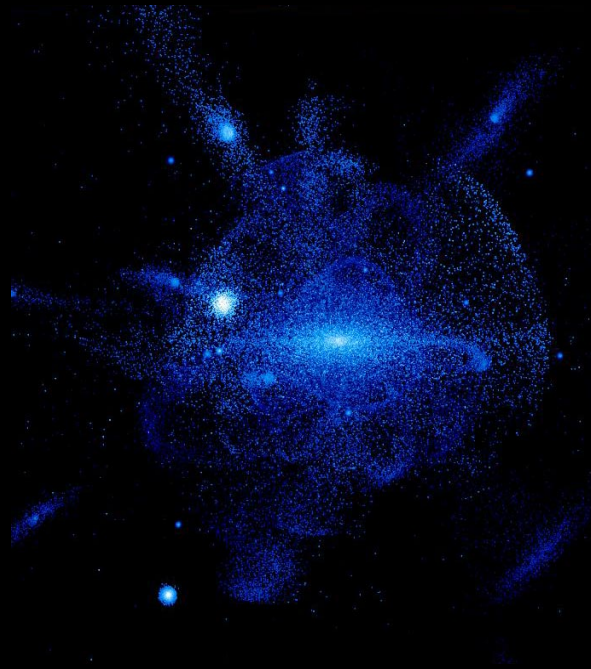


UNVEILING THE MILKY WAY'S HALO: a combination of KiDS + ATLAS?



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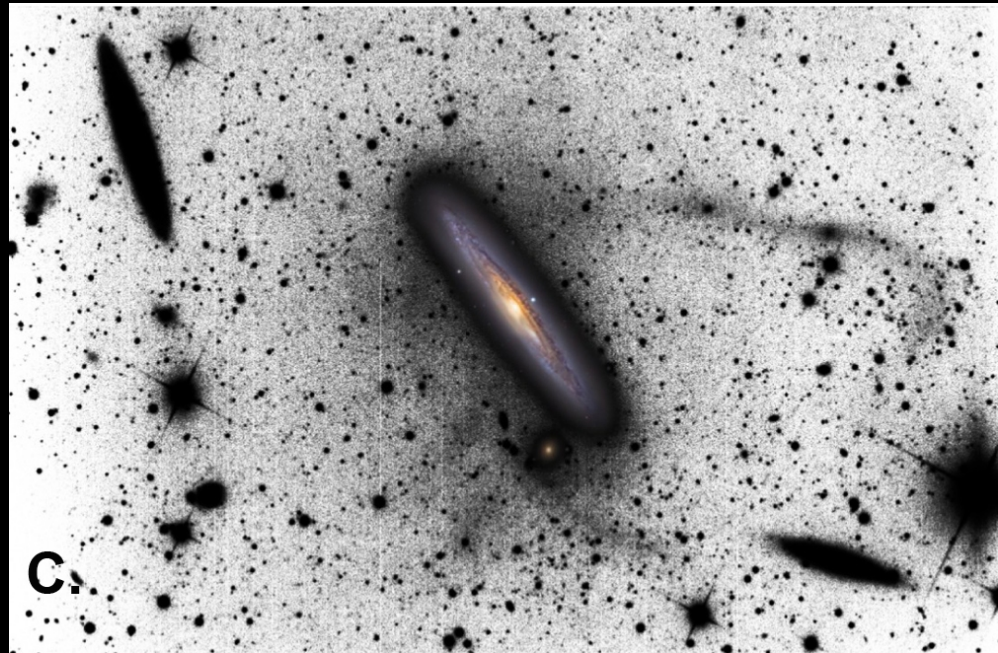
Outline:

- Milky Way type halos
- SDSS forecasts for ATLAS
- What KiDS can add to the picture

I. Intermediate halos



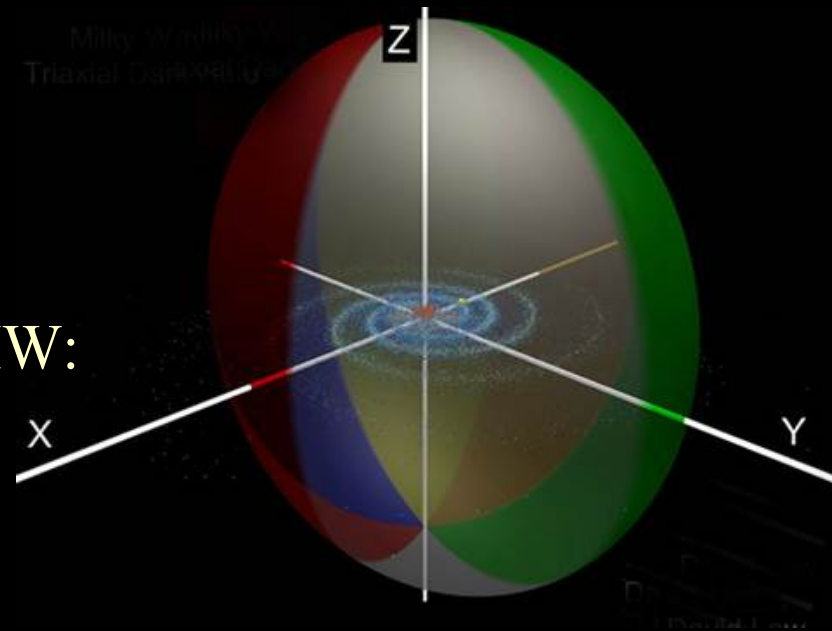
C. Frenk



D. Martínez-Delgado et al. 2010, NGC 4216,
arXiv 1003.4860

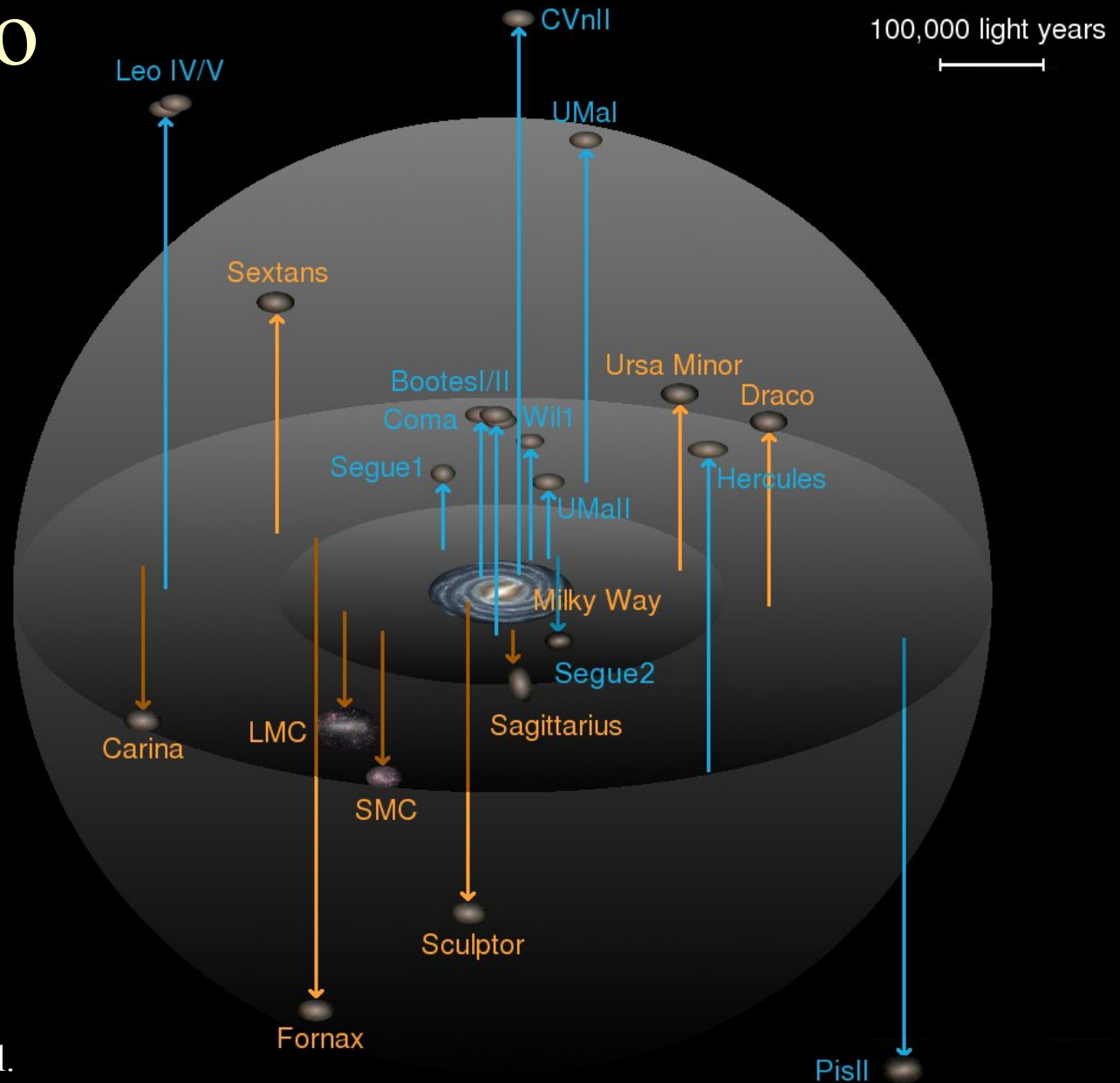
I. Intermediate halos - answers to:

- The dynamics of the infalls
- The gravitational potential of the MW:
 - shape
 - radial structure
 - Dark Matter content (!)
- The formation history of the MW:
 - assembly
 - effect of minor mergers
 - population of satellite galaxies
 - test the Λ CDM paradigm

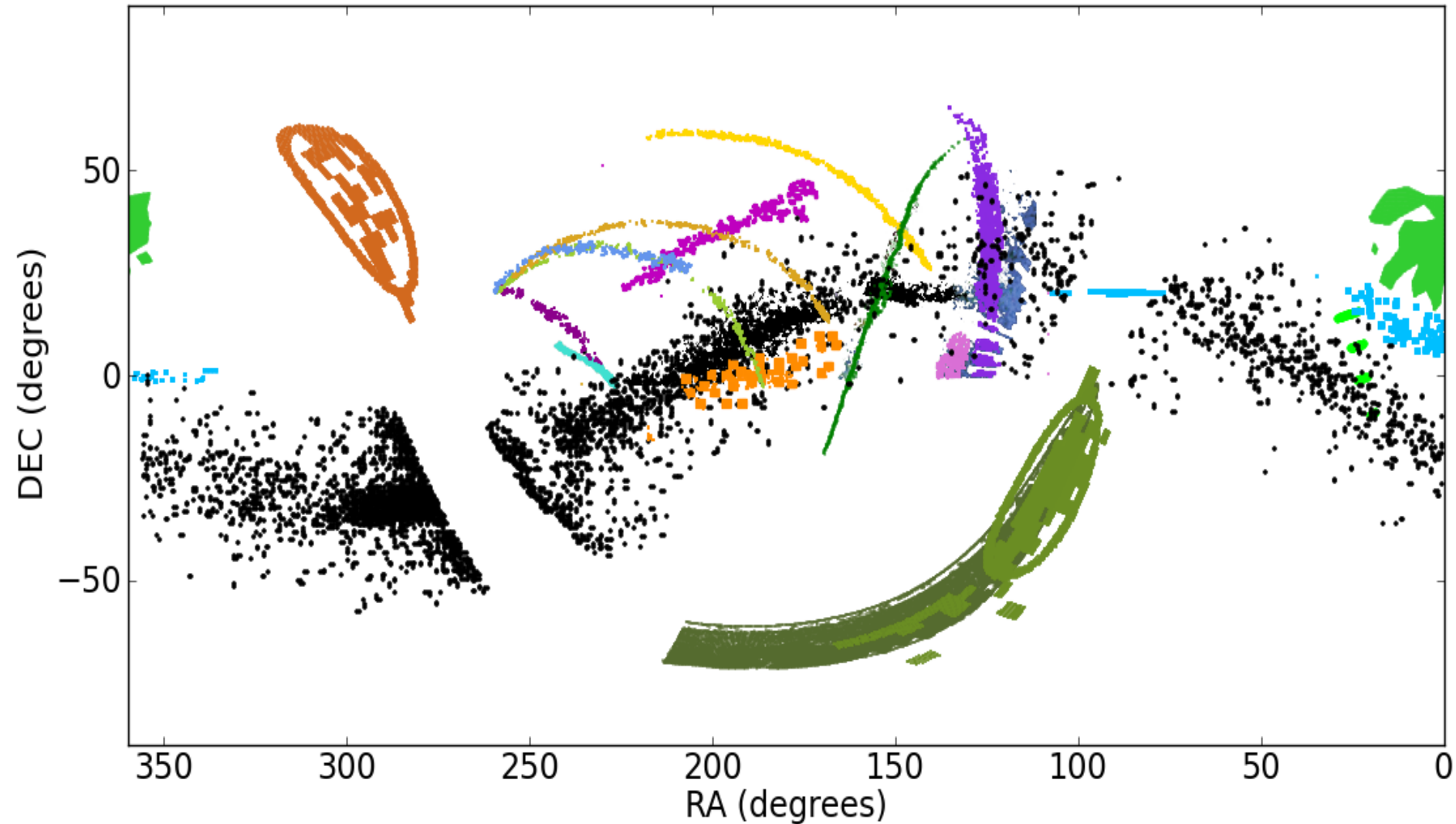


D.R. Law, simulation

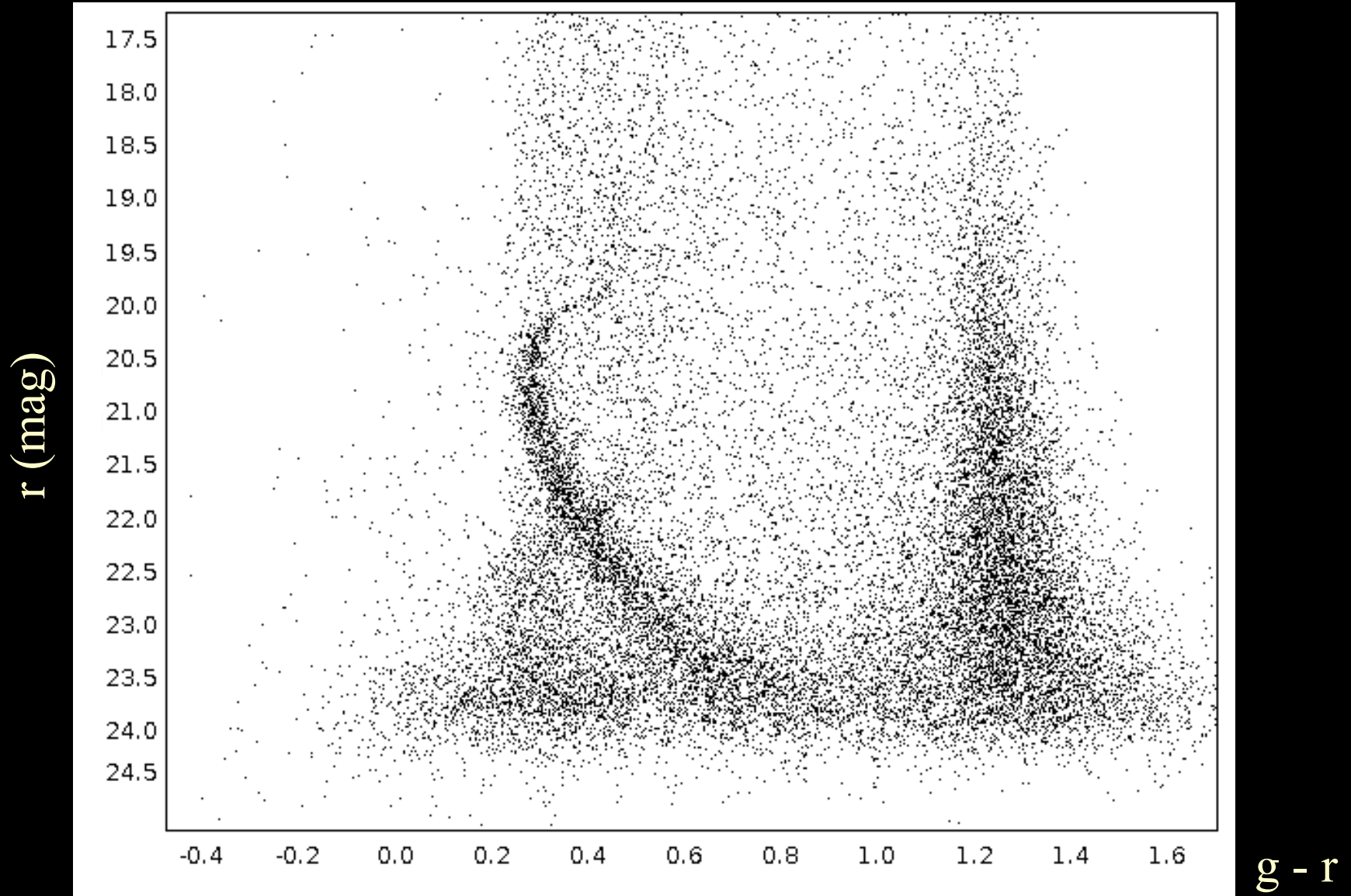
II. Our halo



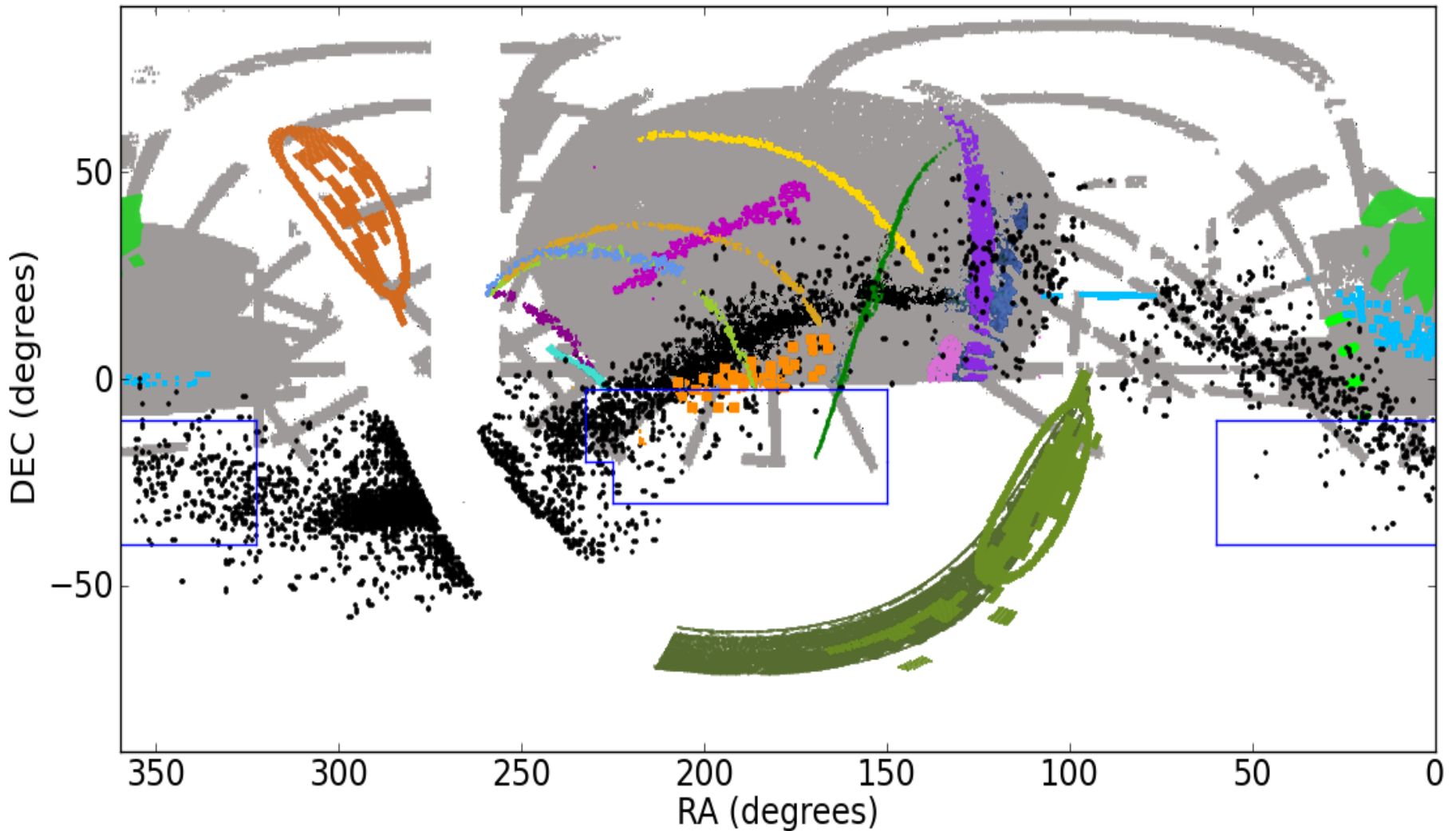
II. Our halo: its streams



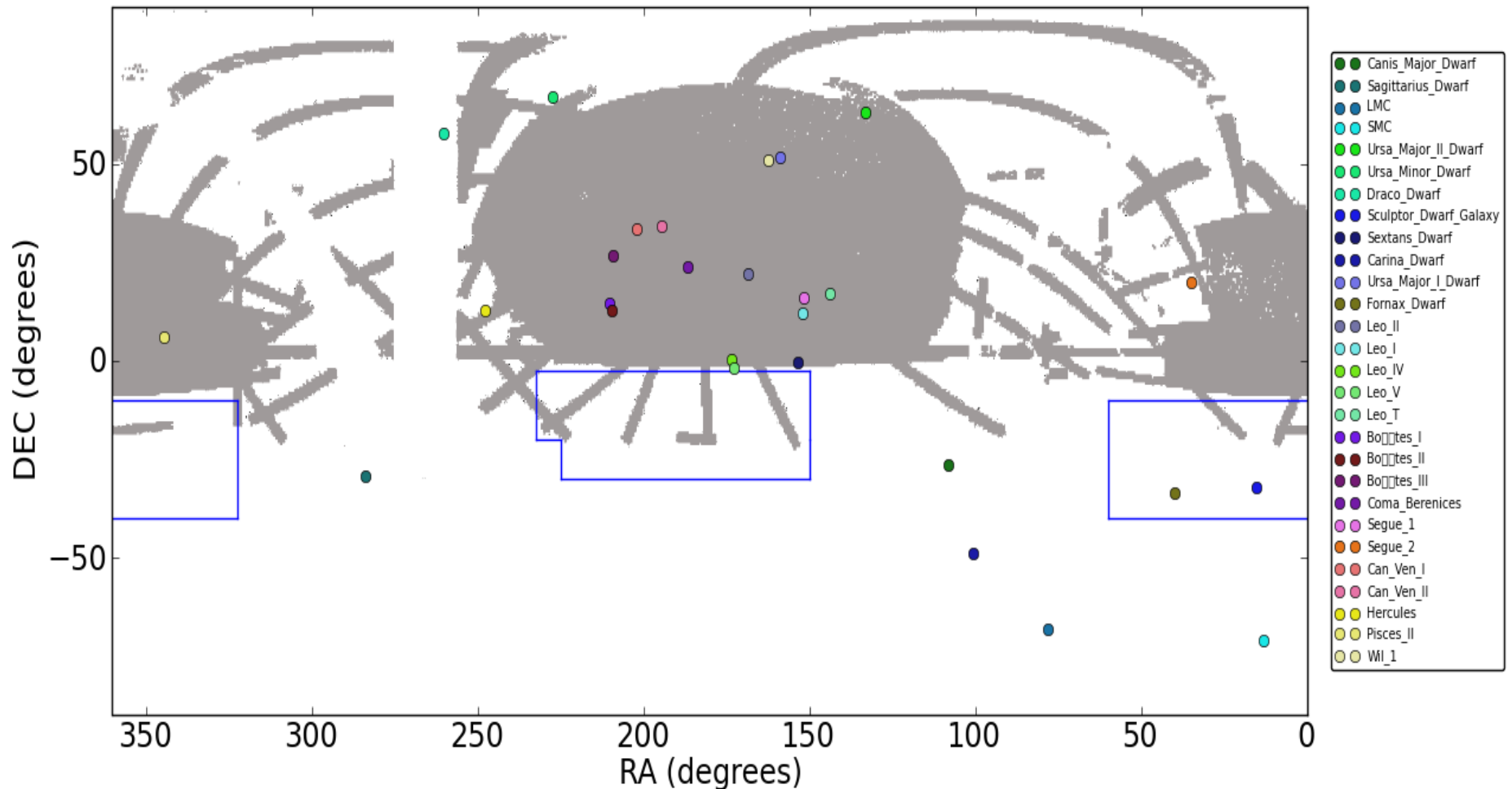
III. Studying our halo



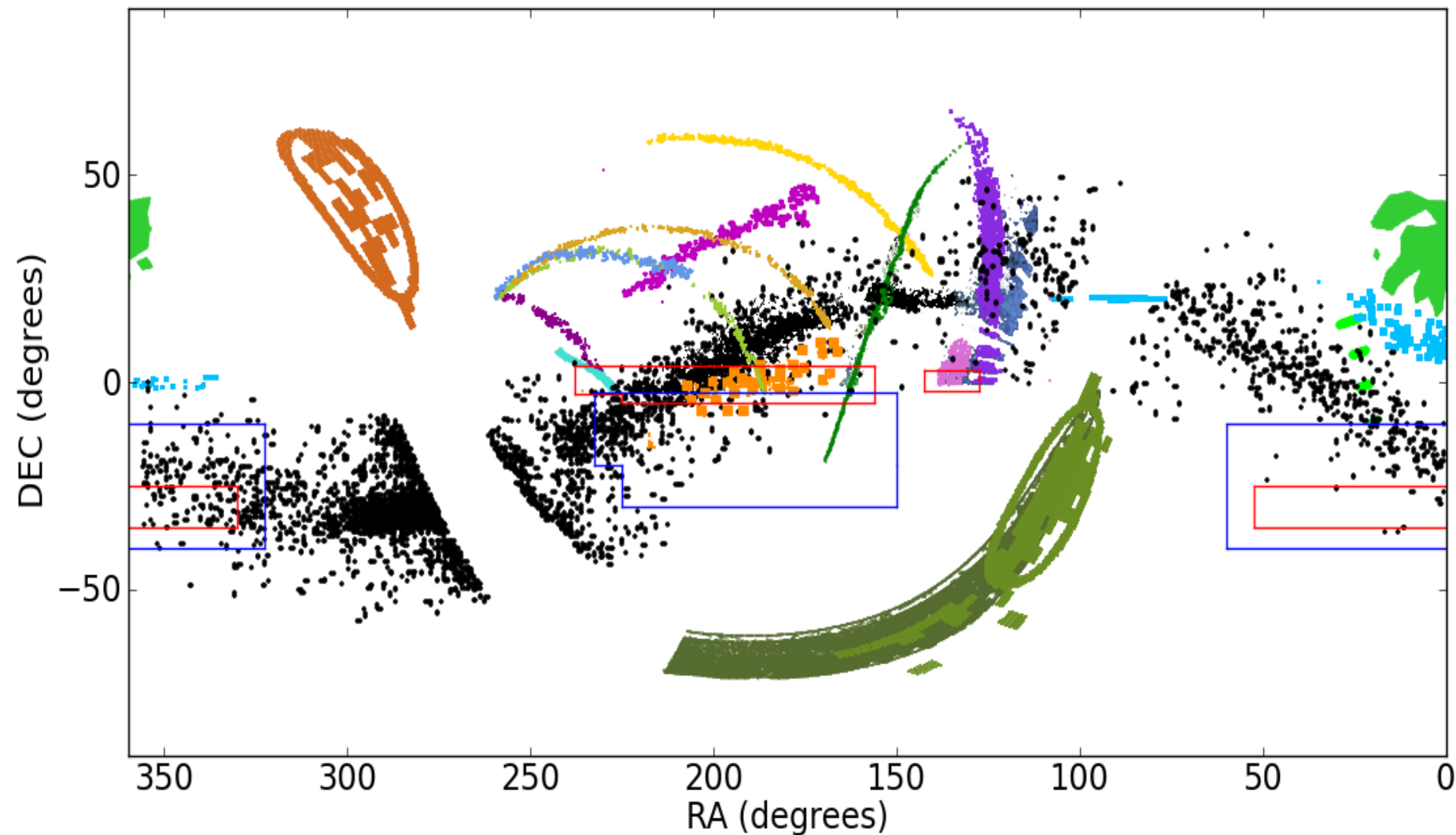
III. SDSS perspectives for ATLAS



III. SDSS perspectives for ATLAS



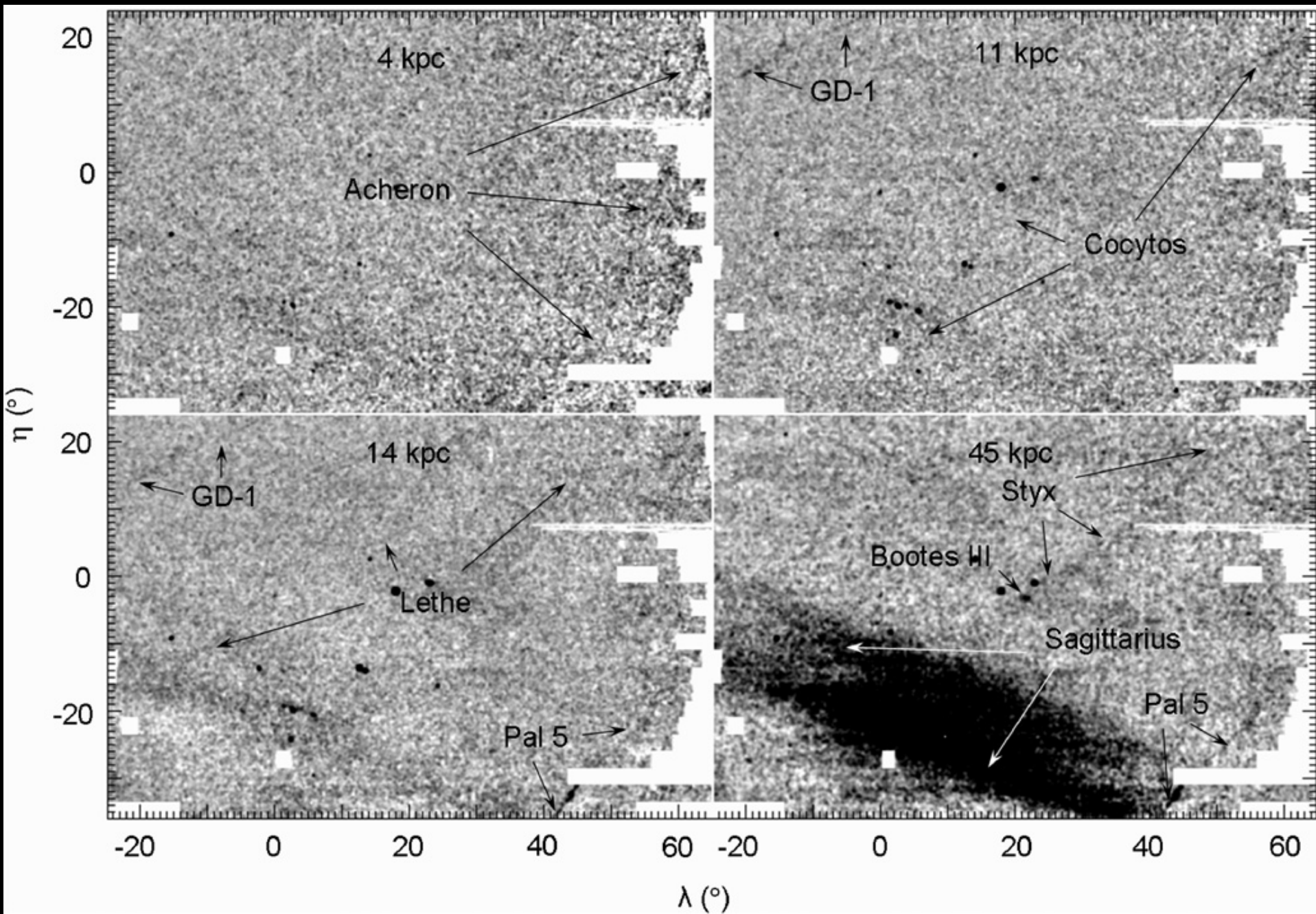
IV. The KiDS survey

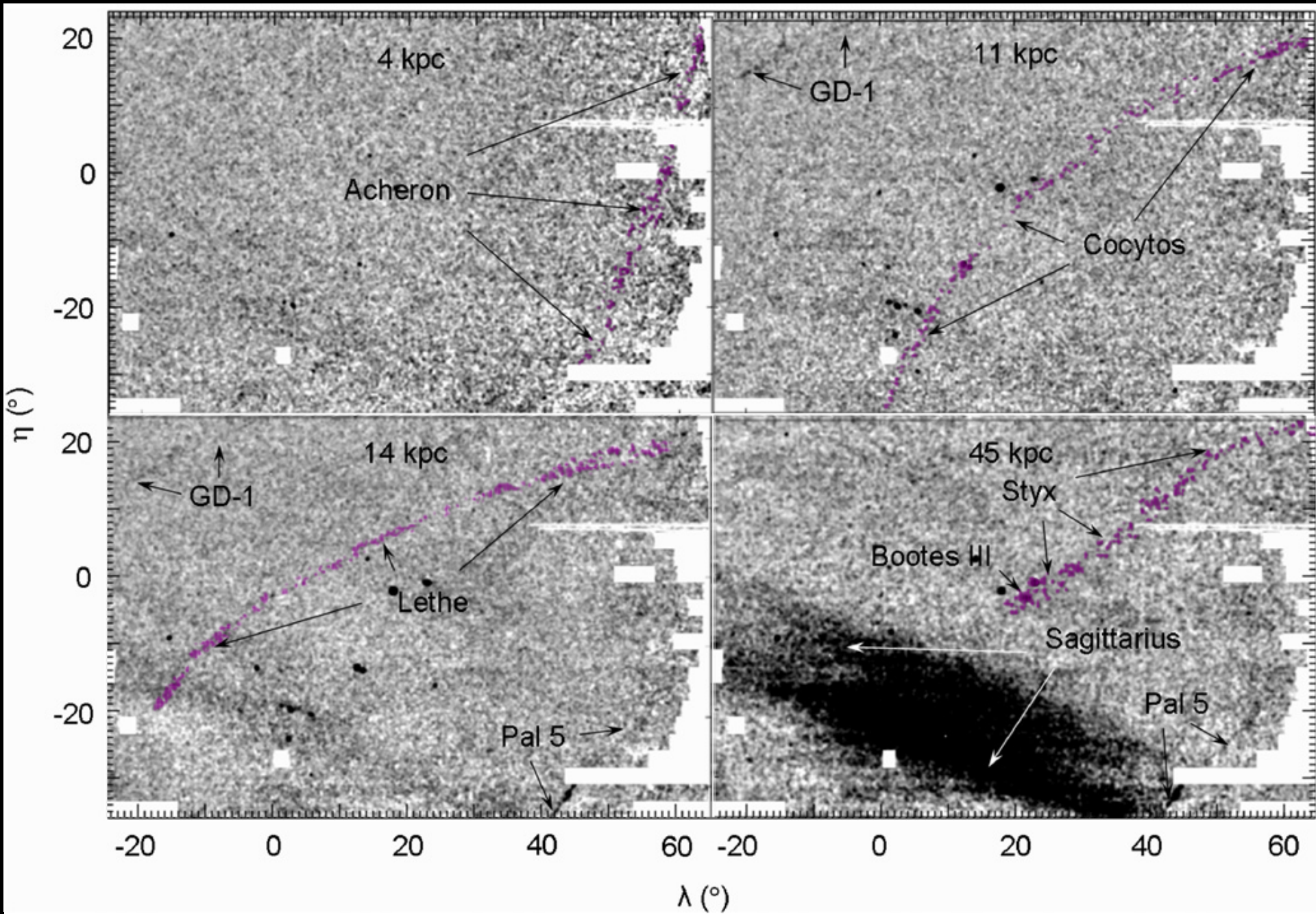


u, g, r, i; $g_{\text{lim}} = 25.5$ mag

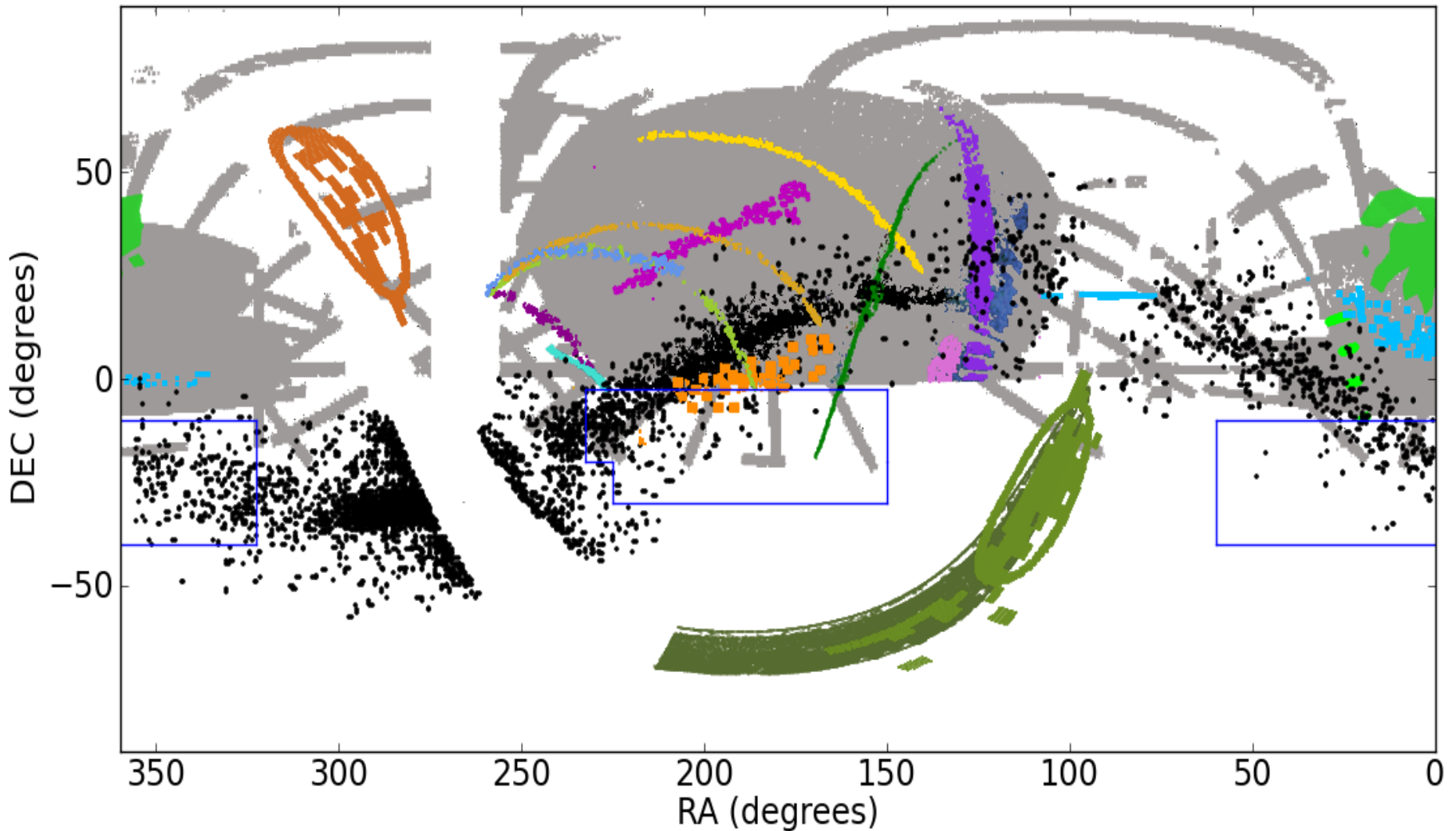
KiDS & VIKING surveys

Z, Y, J, H, Ks; $K_{\text{lim}} = 22.4$ mag

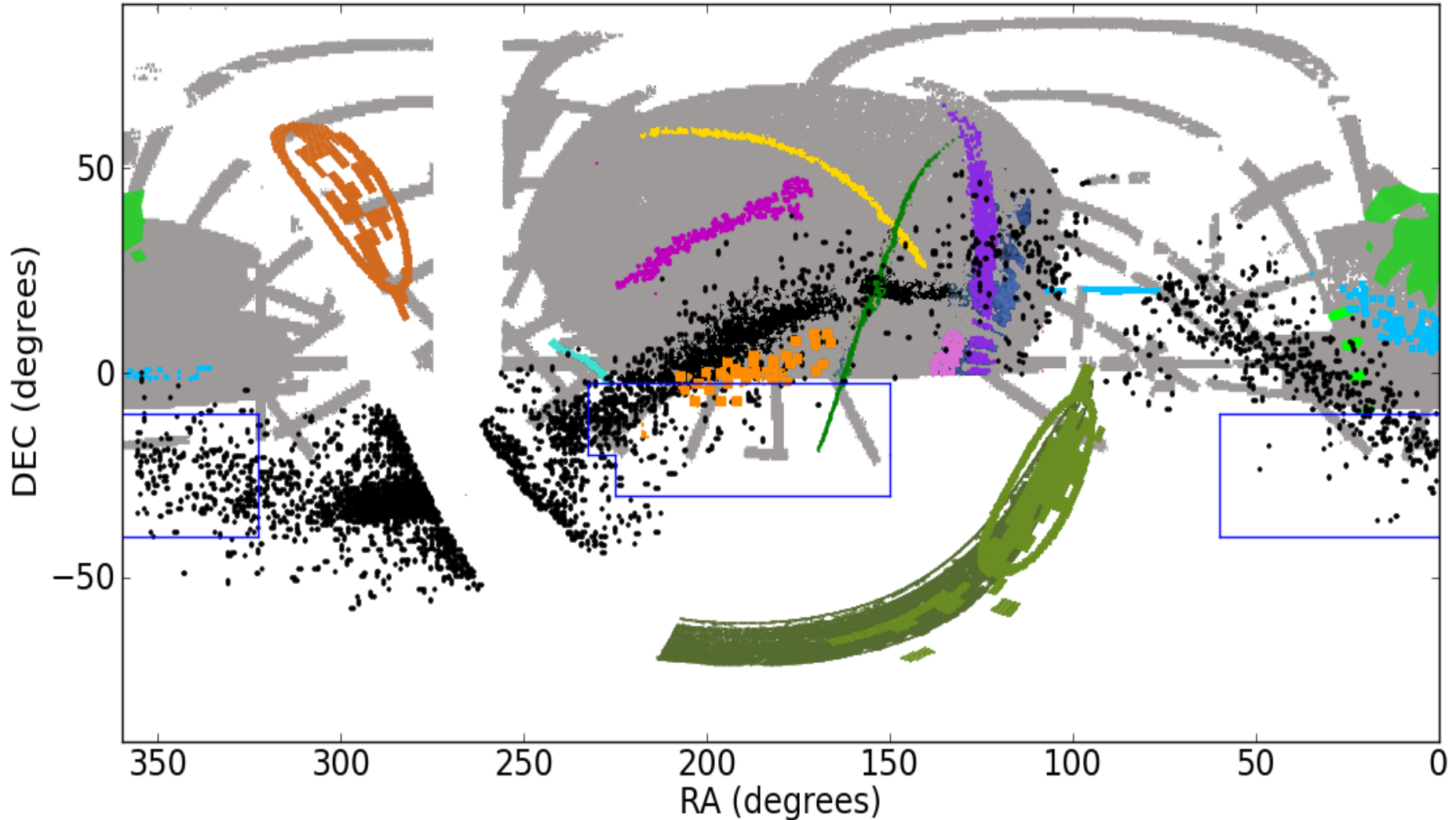




IV. KiDS: pushing the limits



IV. KiDS: pushing the limits



Summary:

- Large southern areas: surveyed for the 1st time
- ATLAS has a 4500 deg² coverage.
- KiDS has a coverage 2.5 deeper than SDSS and VIKING, 1.4 deeper than UKIDSS.
- Knowledge on the substructure of the MW needs of both kind of surveys.