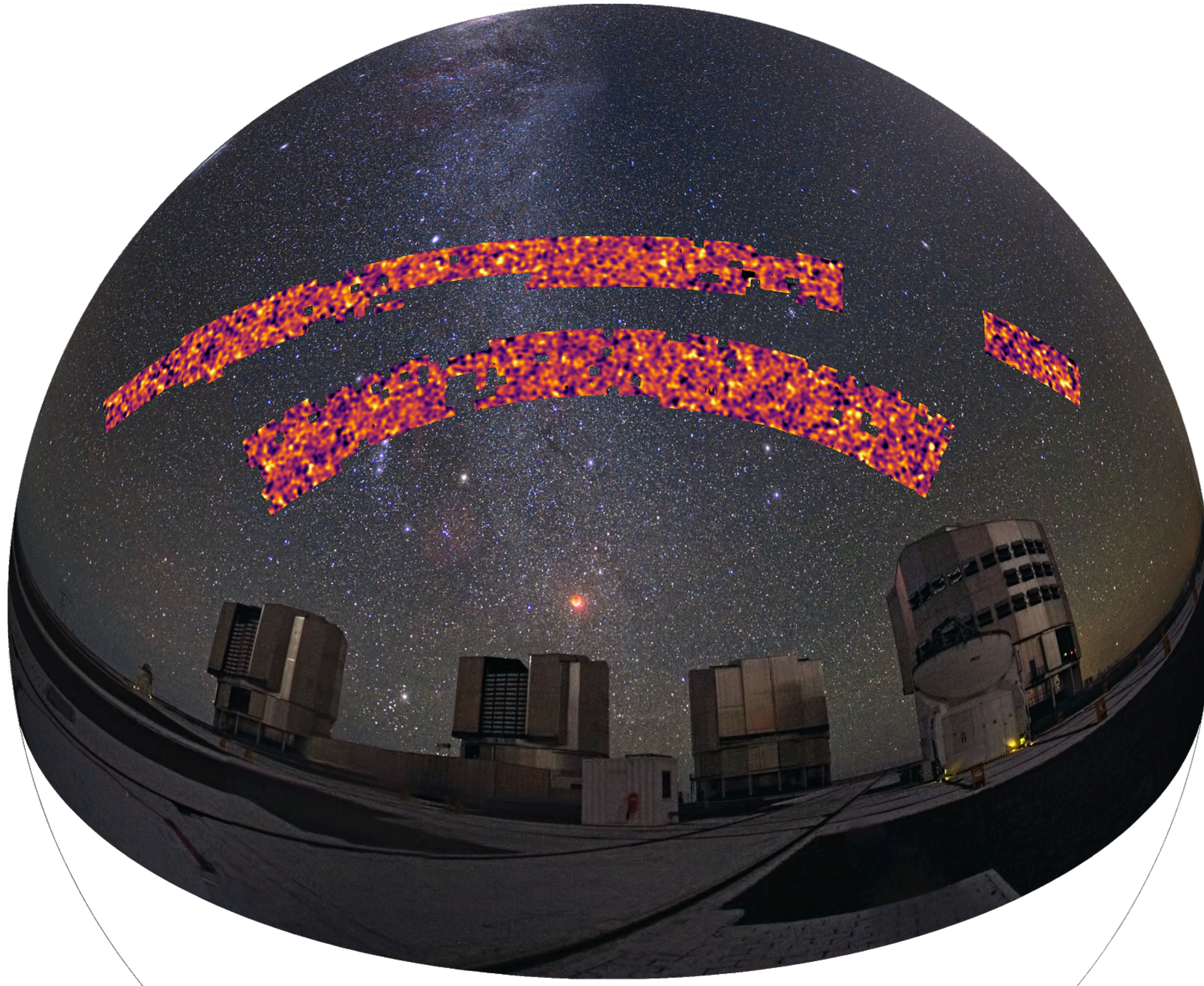


KiDS-1000: a weak lensing catalogue

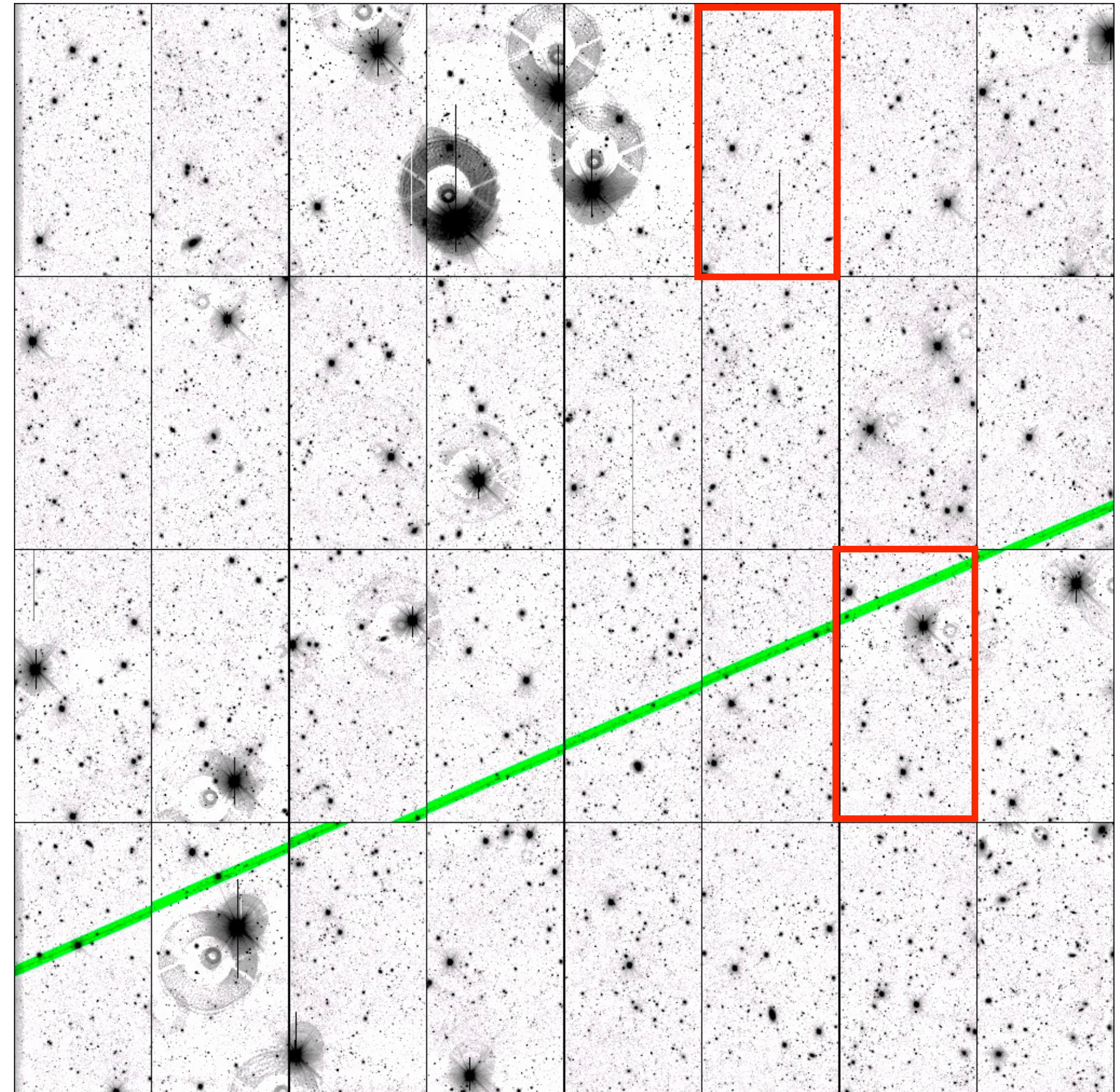


- Galaxy shape distortions (“shear”) measured from 21 million galaxies.
- 1006 square degrees of deep multi-band imaging for weak lensing cosmology.
- Discussed in a collection of papers recently posted on arXiv: Asgari+, Heymans+, Hildebrandt+, Joachimi+,...
- **Giblin et al.:** robustness tests of the shear and redshift calibrations.

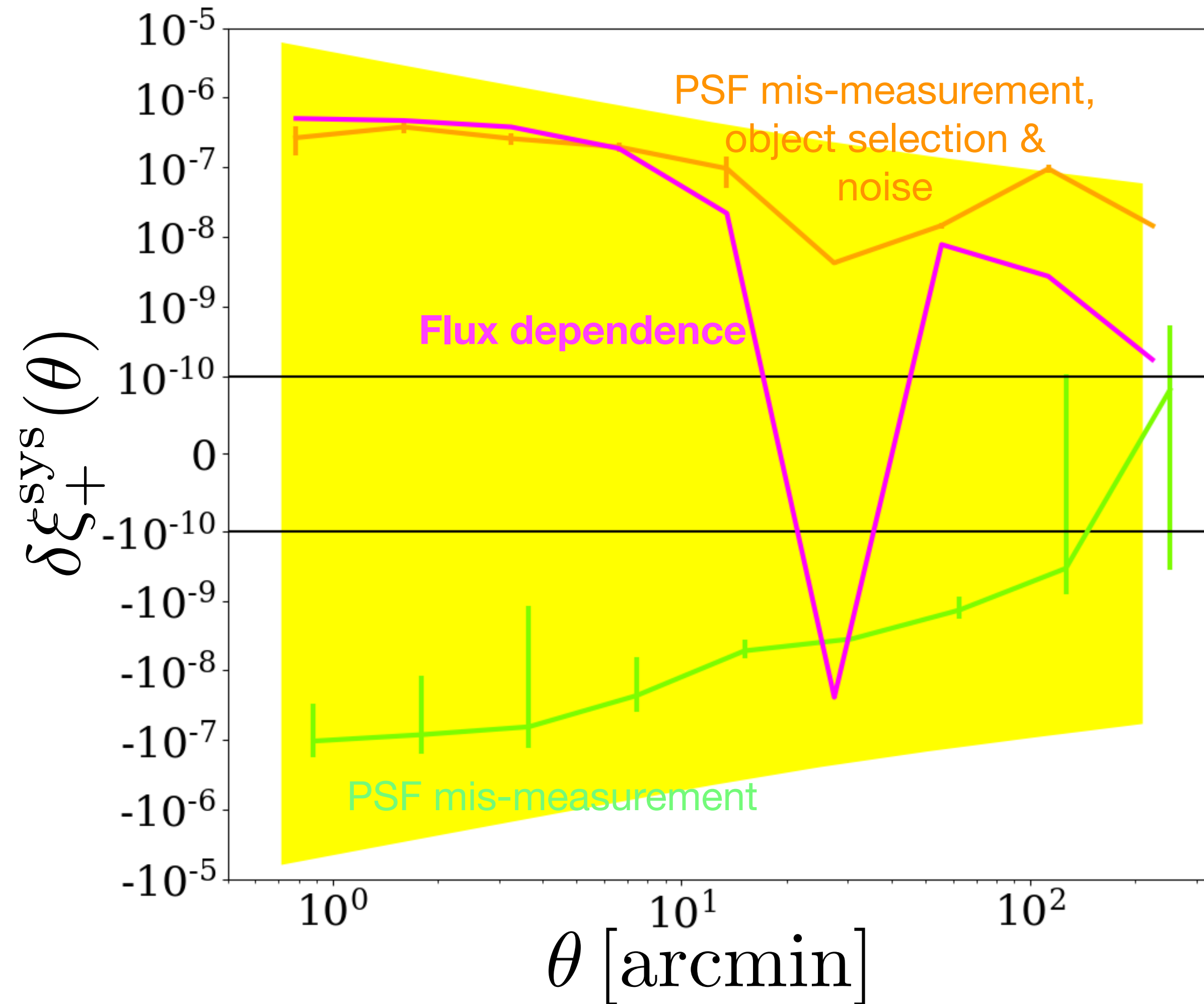
KiDS-1000: PSF modelling

Sources of error:

- Mis-measurement of the PSF shape and size.
- Imperfect deconvolution of the PSF from the imaging.
- Object selection and noise biasing.
- Instrumental defects: flux- and CCD-dependence in the PSF.



KiDS-1000: PSF modelling



- Propagate the biases induced by PSF modelling forward to cosmological parameter constraints.
- Induces $<0.1\sigma$ bias in the clustering parameter

$$S_8 = \sigma_8 \sqrt{\Omega_m/0.3}$$

