

ABSTRACT

BOUT, Jeffrey

Kapteyn Astronomical Institute

KiDS Global Photometry

The Kilo Degree Survey (KiDS) is observing since October 2011 with the 32-chip, 1 square degree FoV OmegaCAM camera at the VLT Survey Telescope at ESO Paranal. It covers 1500 square degrees in four SDSS filters (u',g',r',i') with patches in both the Northern and Southern skies. The survey is obtained under typically sub-arcsecond seeing and is ~2 magnitudes deeper than SDSS. Its main science driver is dark matter and energy from weak lensing tomography. This requires 1% photometric calibration of the survey, which is observed partially under non-photometric conditions. Photometric calibration is done by a combination of (i) a very stable dome calibration unit, (ii) 3 times per night observations of a polar field and (iii) SA fields. This poster presents our approach and first results to obtain homogeneous photometry using the above calibrations plus overlaps in survey pointings.