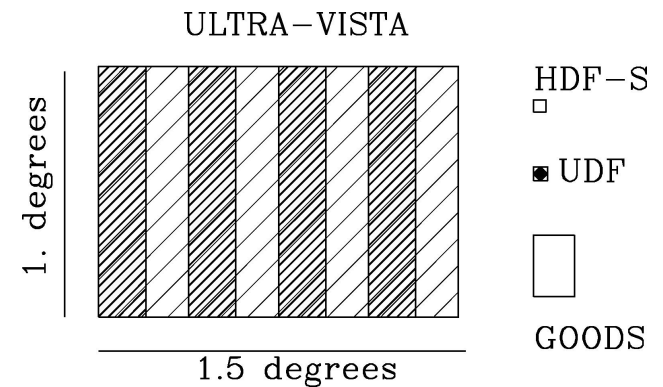


UltraVISTA: An ultra-deep survey with VISTA

PIs: Dunlop, LeFevre, Franx, Fynbo

What:

- Deep survey of the **COSMOS** field.
- A 5yr survey that in the end will reach $Y=26.7$, $J=26.6$, $H=26.1$, $K=25.6$ (5 sigma) and a Lyman-alpha flux-limit of $4e-18$ erg/s/cm².



Goals:

- to detect $z > 6$ galaxies using the drop-out technique. Forecast: 560 ($z \approx 6.3$), 450 ($z \approx 7.5$), 180 ($z \approx 8.5$) and 6 ($z \approx 10$) galaxies
- to detect $z = 8.8$ Lyman-alpha emitters using narrow band imaging. Forecast: $\sim 10-20$ galaxies
- additional goals: other emission line objects, build-up of mass, transients

- **P84+P85**: 201 hours of execution time were achieved so far against a planning assumption of ~550 hours per year. There were a number of reasons for this, including the fact that official survey observations did not commence until roughly halfway through the UltraVISTA observing window.
- We expect that ESO will ensure that the assumed number of hours per year specified in the SMP will be delivered (up to weather).
- Data reduction: CASU + Terapix (more from Henry)
- First data release (SMP): July 1 2011
 - 1 hr stacks (from CASU)
 - Full co-added images using all data from first season, along with corresponding weight maps.
 - Multi-parameter, single-band catalogues derived using the SExtractor software.
 - Y, J, H, Ks band-merged catalogues (on a longer timescale, as merited by survey progress).