Y3A1 PGCM Calibrations Status Update:

Photometric Gradients Across the Focal Plane and Franken-standard Gridwork

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DES Calibrations Telecon
24 June 2016

1. Photometric Gradients Across the Focal Plane

DARK ENERGY SURVEY

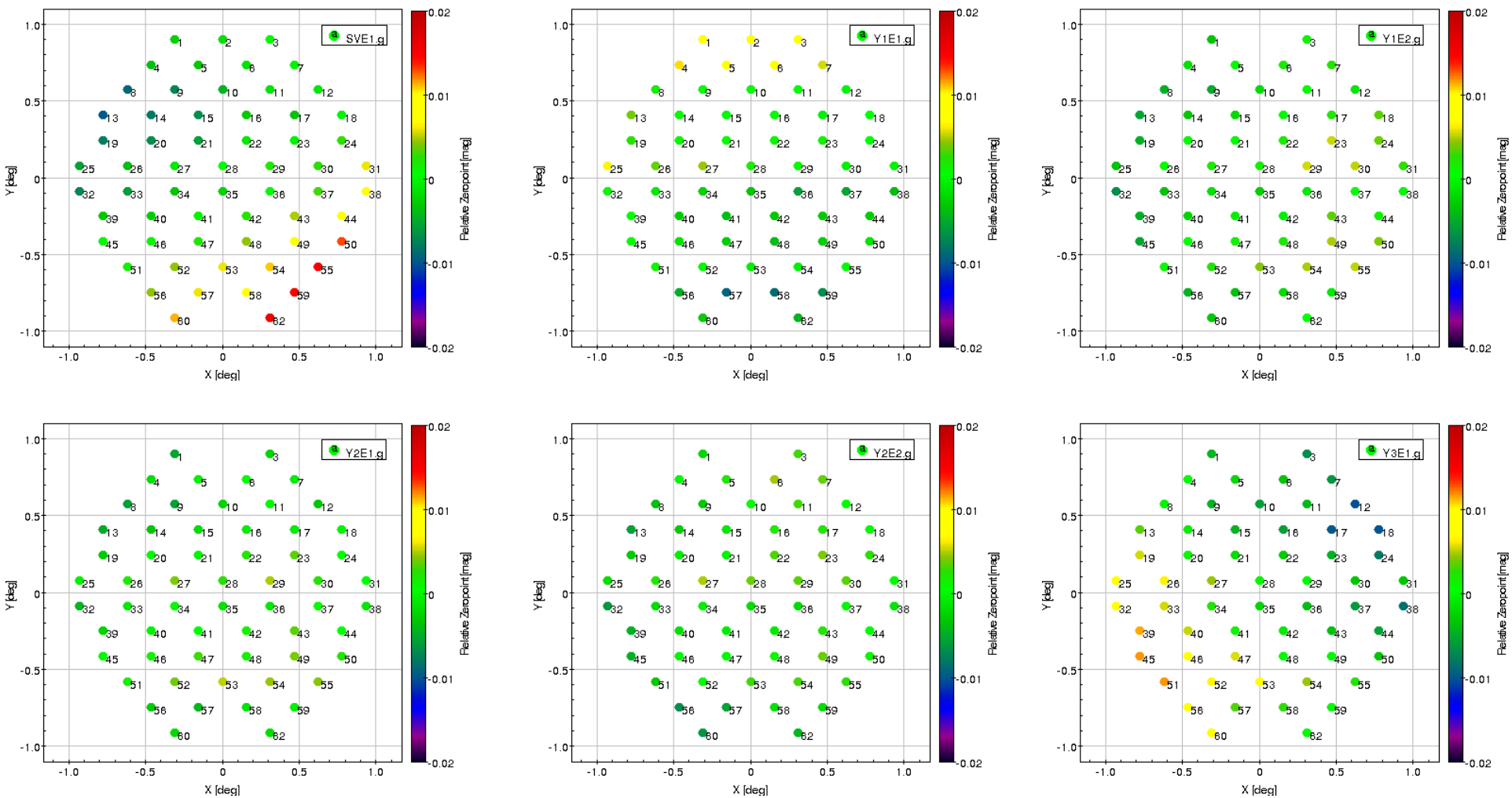
- Matches between the Y2A1_FINALCUT data and the tertiary Franken-standard catalog were employed to measure photometric variations/gradients across a typical photometric exposure for each filter band in each star flat epoch.

- Measurements were made on a set of "plausibly photometric" exposures from all nights and a set of "plausibly photometric" exposures from only those nights graded as good by Dave Finley from RASICAM, TASCA, or aTmCam data.
  - "Plausibly photometric" means that the exposure's zeropoint – measured via "forced PGCM calibration" off the tertiary Franken-standard – does not vary significantly from a highly clipped mean zeropoint of other exposures observed during that star flat epoch.

- Results from the PSM fits would also work, but the PSM fits used so far in the Y2A1_FINALCUT calibrations are all from SVA1, Y1A1, Y2N, and Y3N, which used different star flats (and are thus not applicable).

Plausibly Photometric Exposures: g-band
(ignoring RASICAM/TASCA/aTmCam)

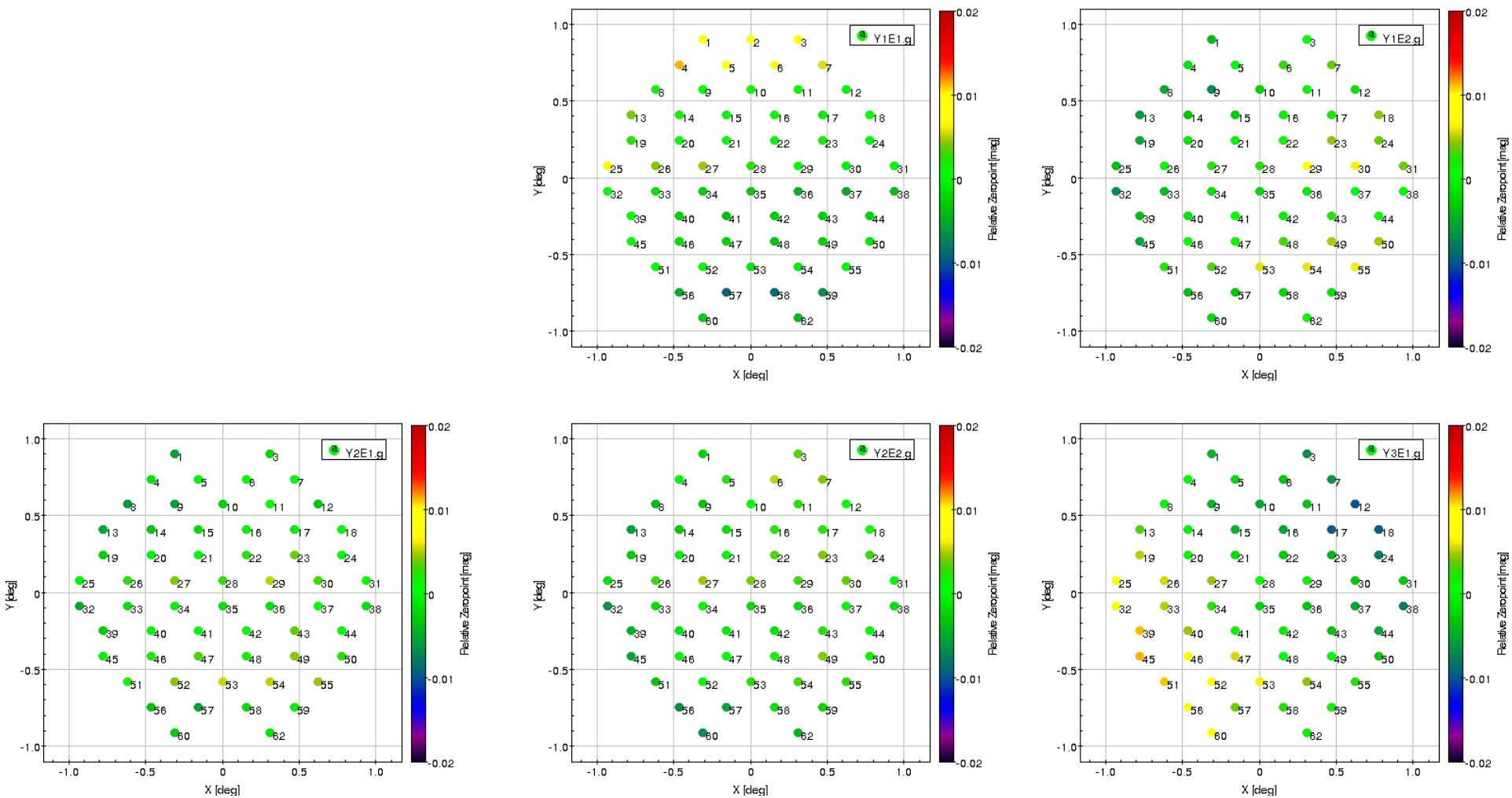
DARK ENERGY SURVEY



Photometric Night Exposures: g-band

(applying D. Finley's RASICAM/TASCA/aTmCam Nightly Grades)

DARK ENERGY SURVEY

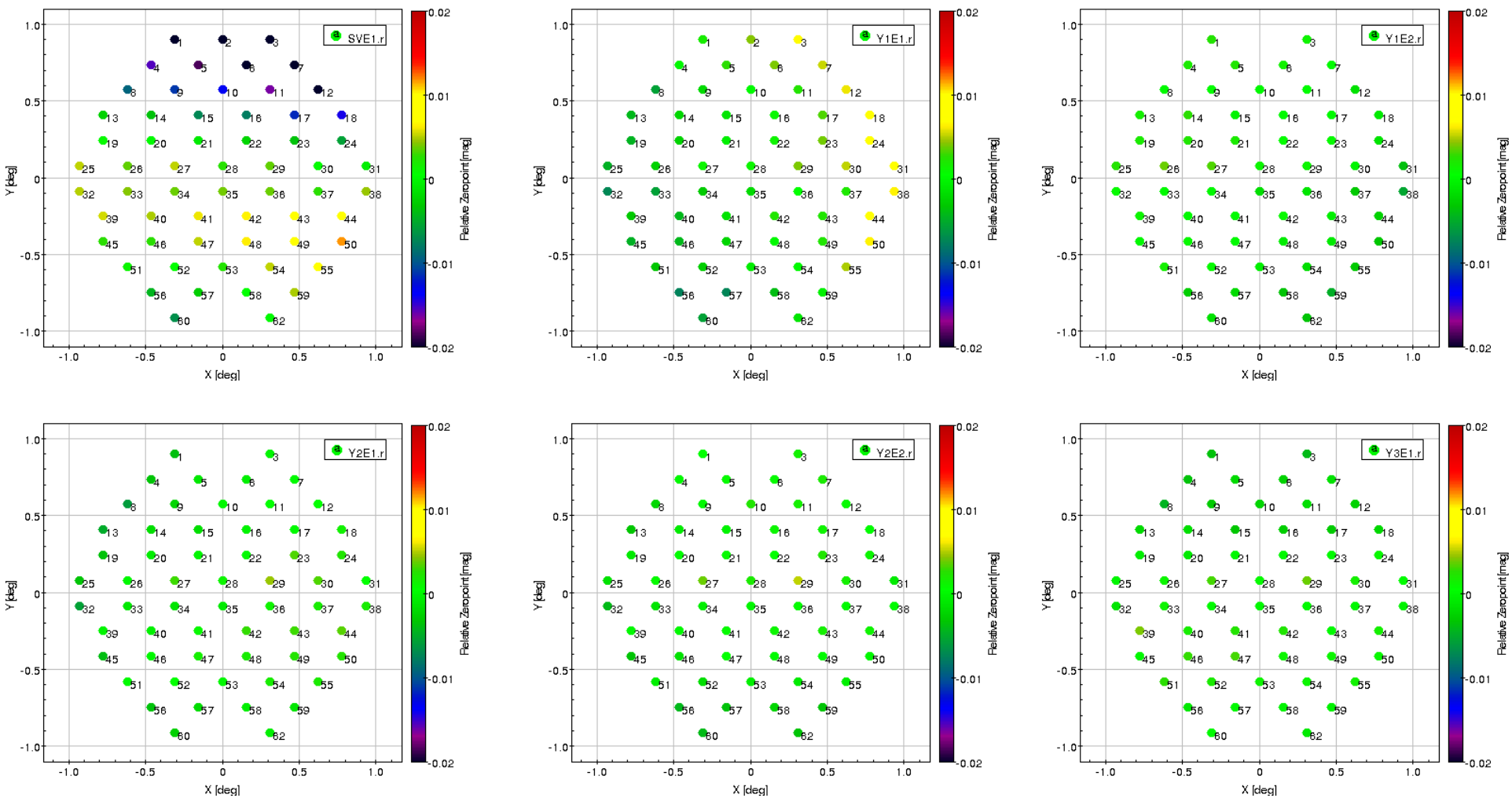


DARK ENERGY
SURVEY

Plausibly Photometric Exposures: r-band

(ignoring RASICAM/TASCA/aTmCam)

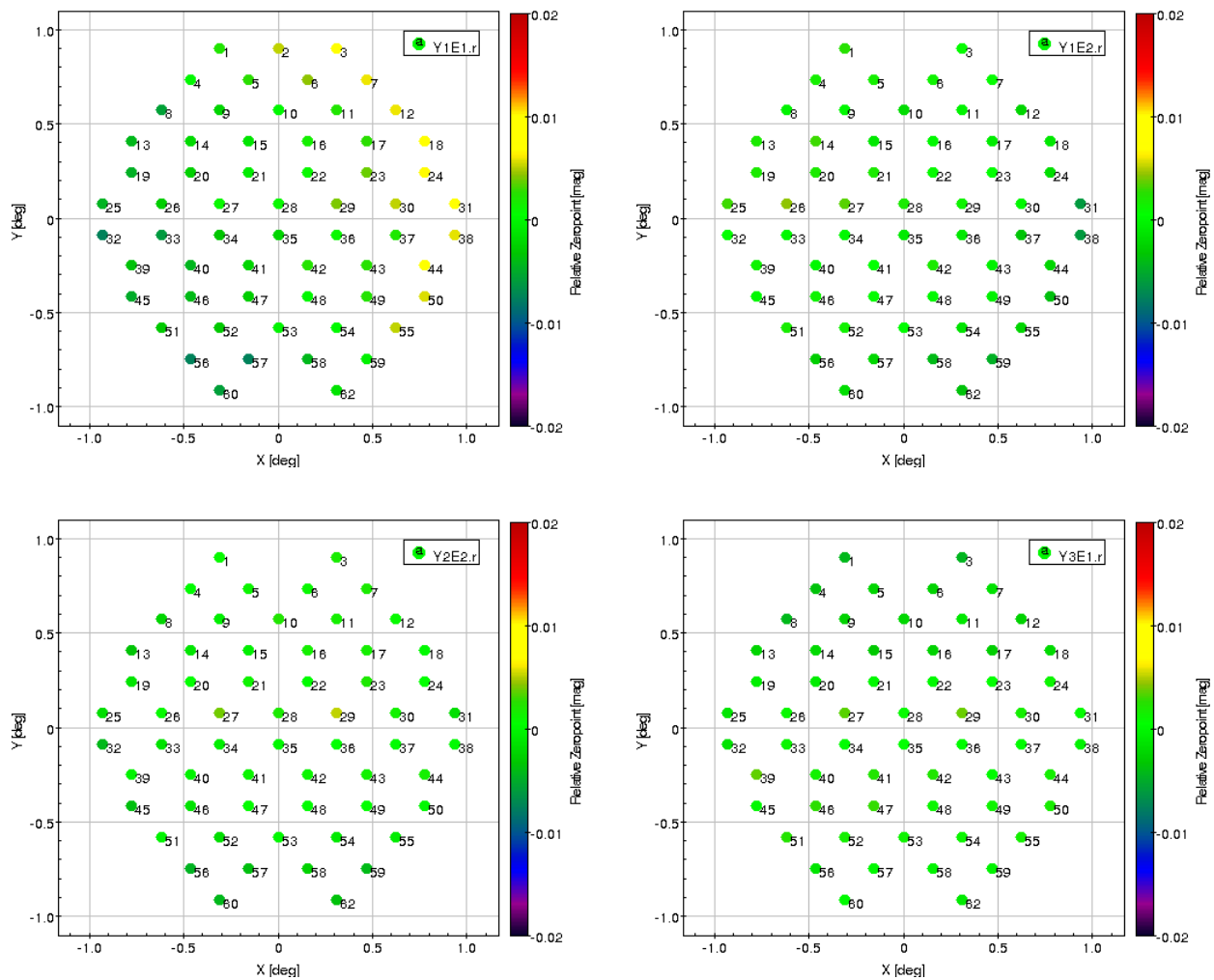
DARK ENERGY SURVEY



Photometric Night Exposures: r-band

(applying D. Finley's RASICAM/TASCA/aTmCam Nightly Grades)

DARK ENERGY SURVEY

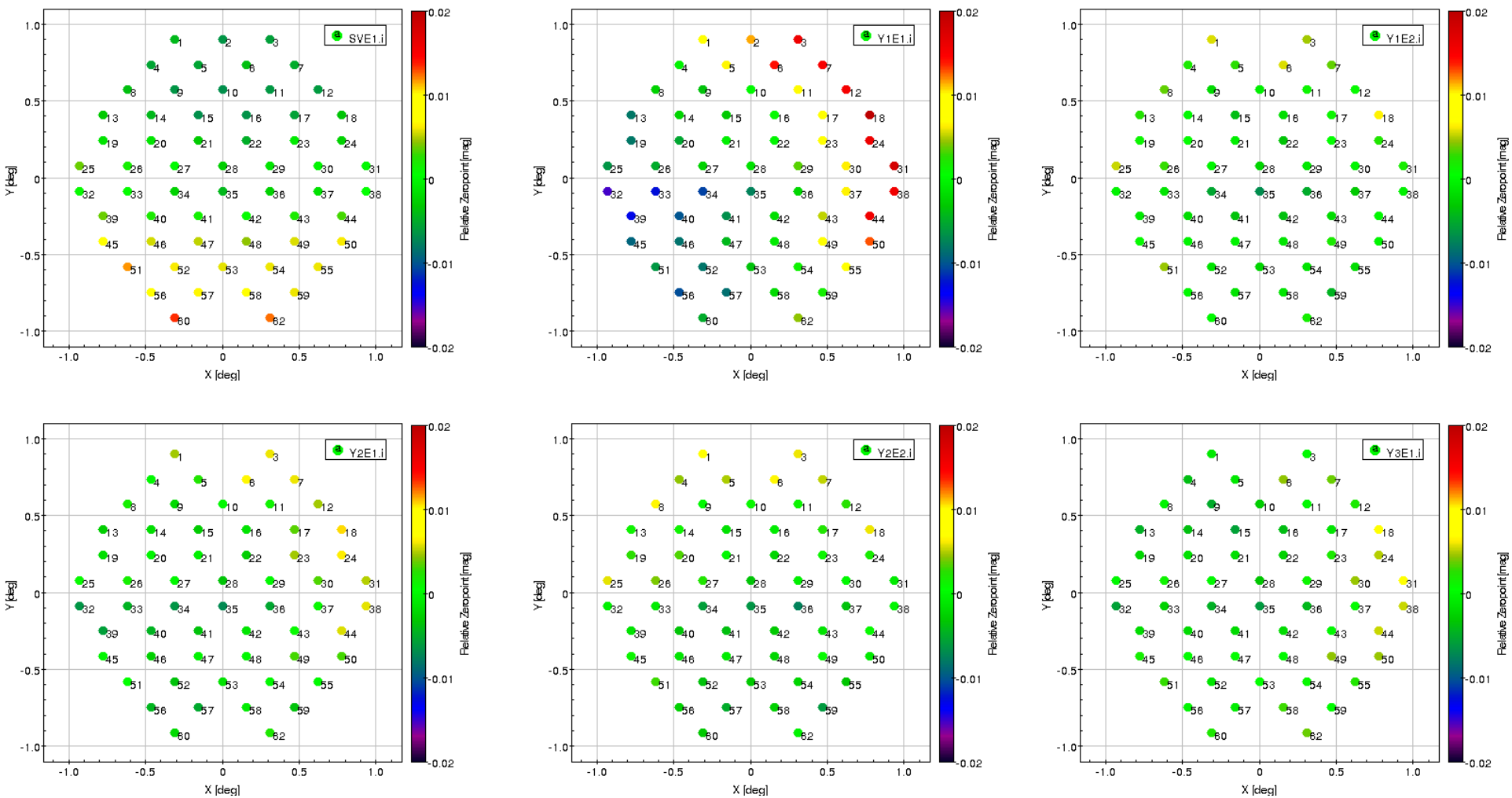


DARK ENERGY
SURVEY

Plausibly Photometric Exposures: i-band

(ignoring RASICAM/TASCA/aTmCam)

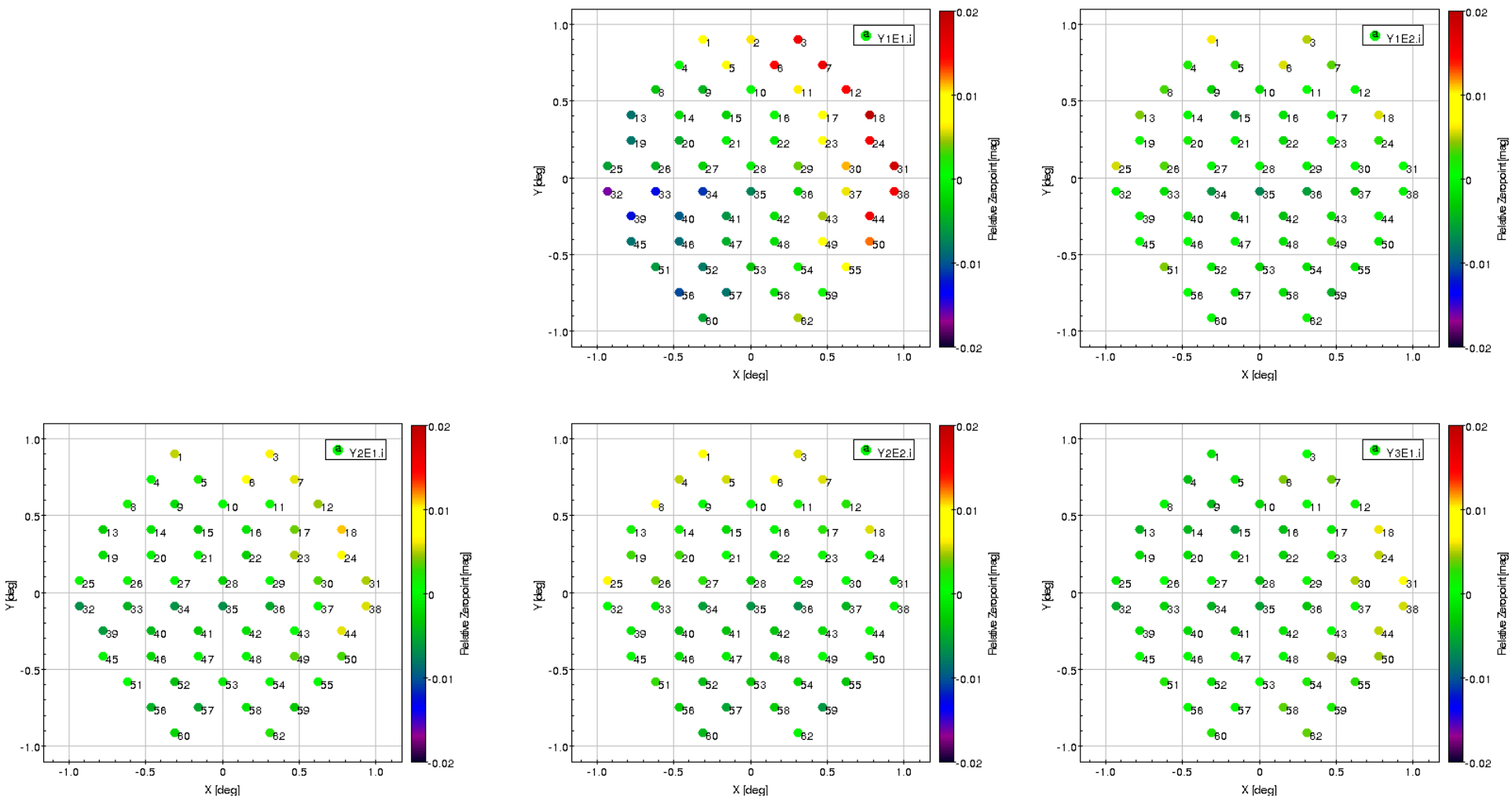
DARK ENERGY SURVEY



Photometric Night Exposures: i-band

(applying D. Finley's RASICAM/TASCA/aTmCam Nightly Grades)

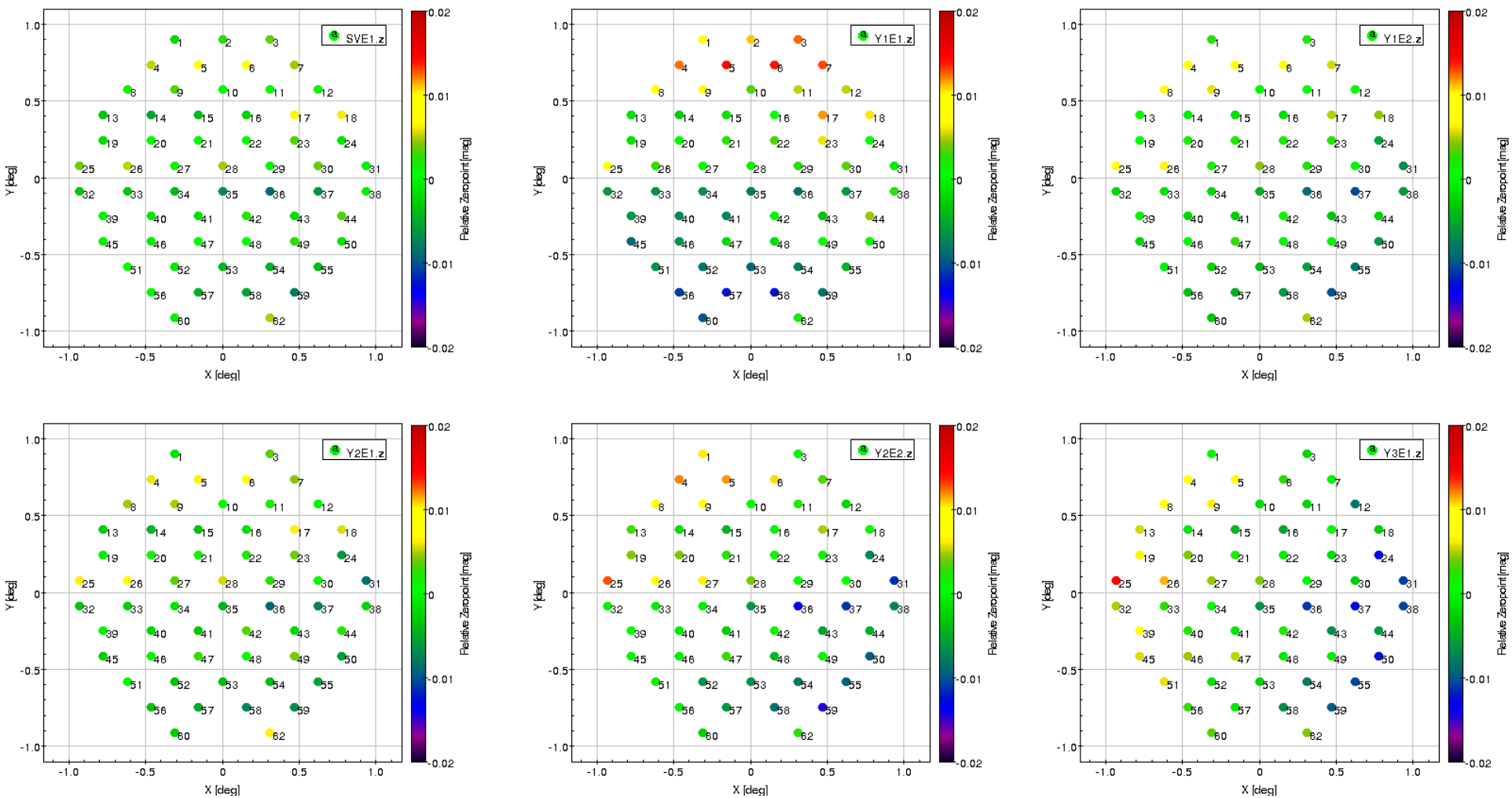
DARK ENERGY SURVEY



DARK ENERGY
SURVEY

Plausibly Photometric Exposures: z-band
(ignoring RASICAM/TASCA/aTmCam)

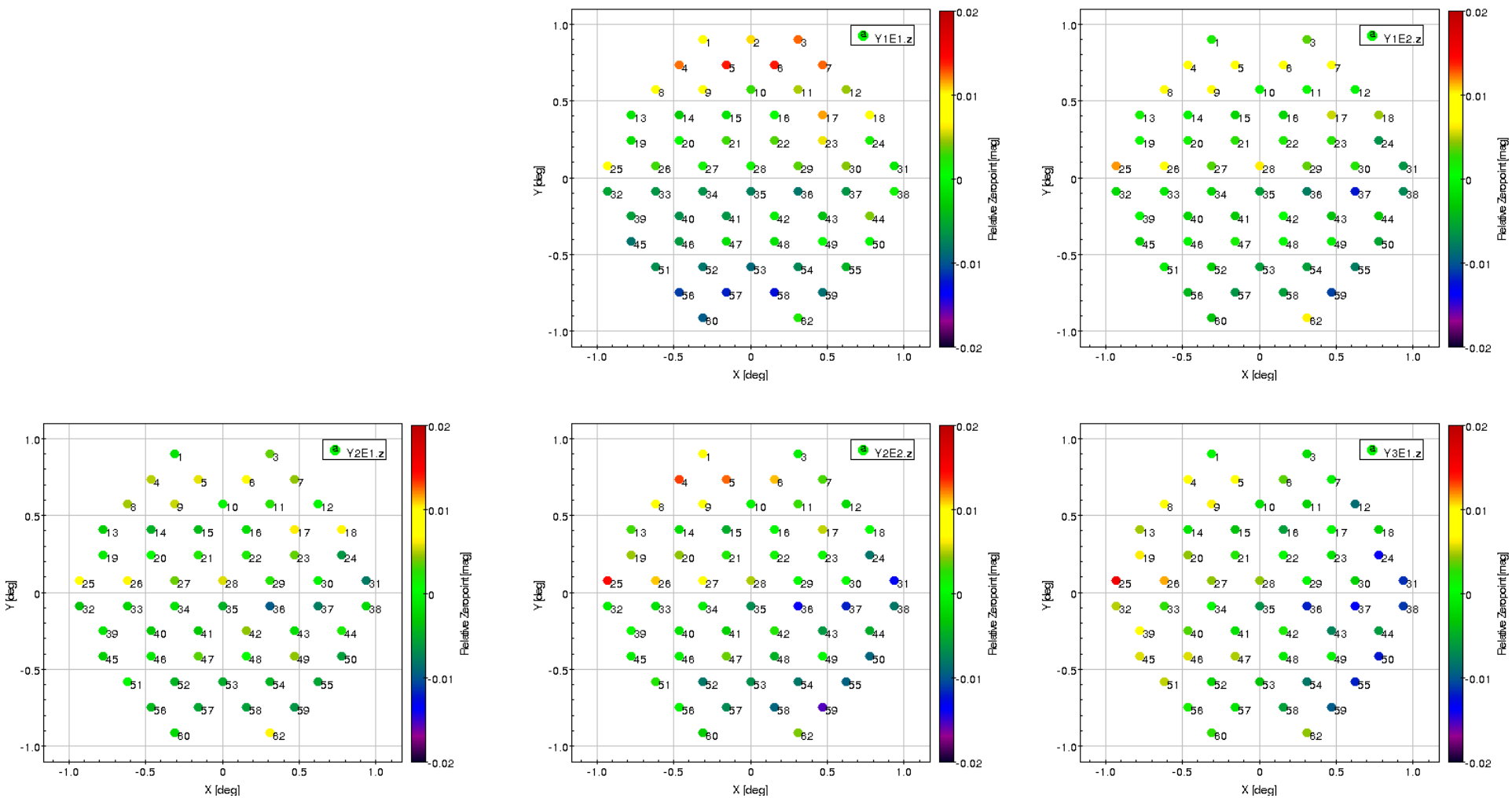
DARK ENERGY SURVEY



Photometric Night Exposures: z-band

(applying D. Finley's RASICAM/TASCA/aTmCam Nightly Grades)

DARK ENERGY SURVEY

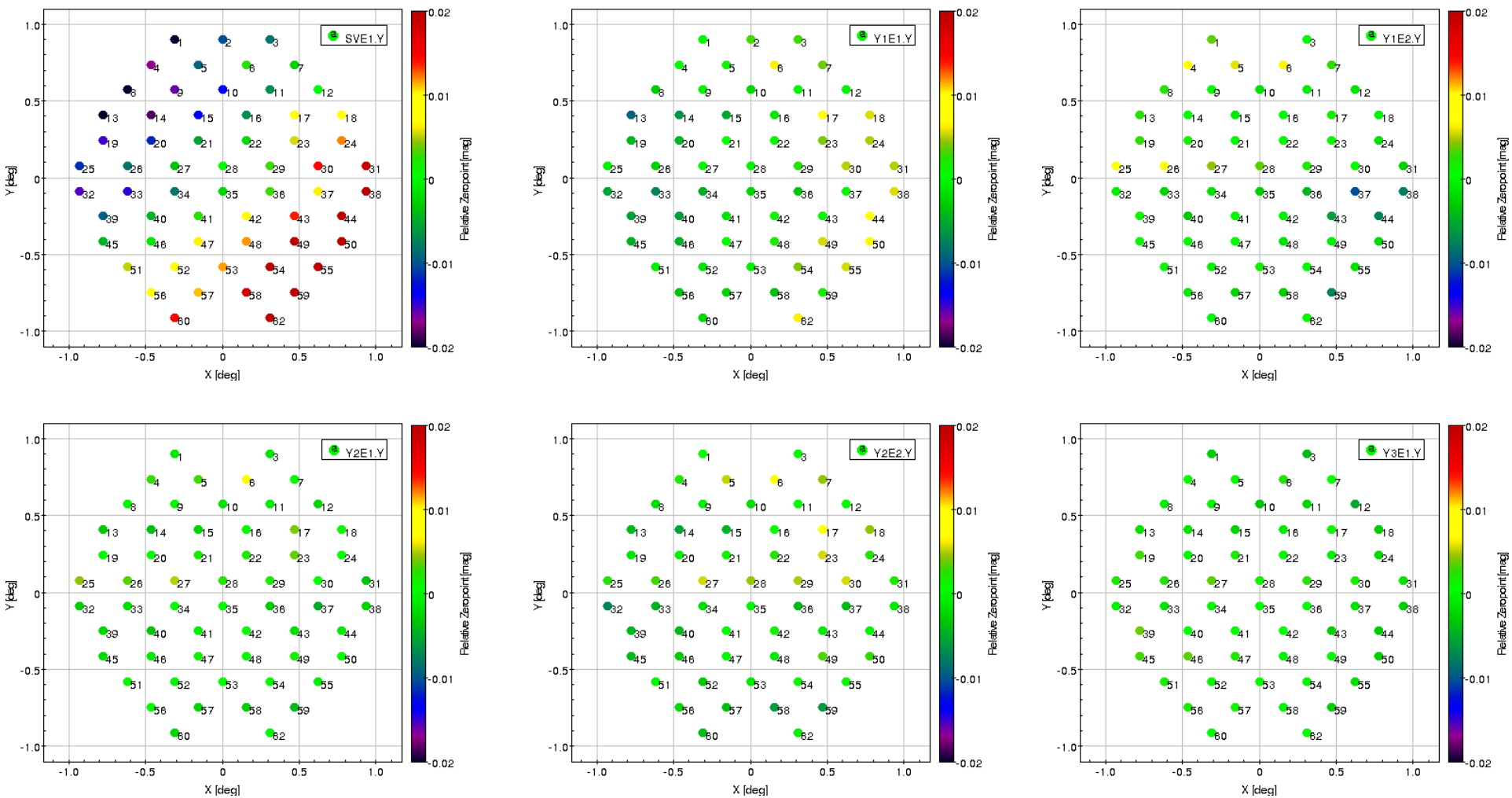


DARK ENERGY
SURVEY

Plausibly Photometric Exposures: Y-band

(ignoring RASICAM/TASCA/aTmCam)

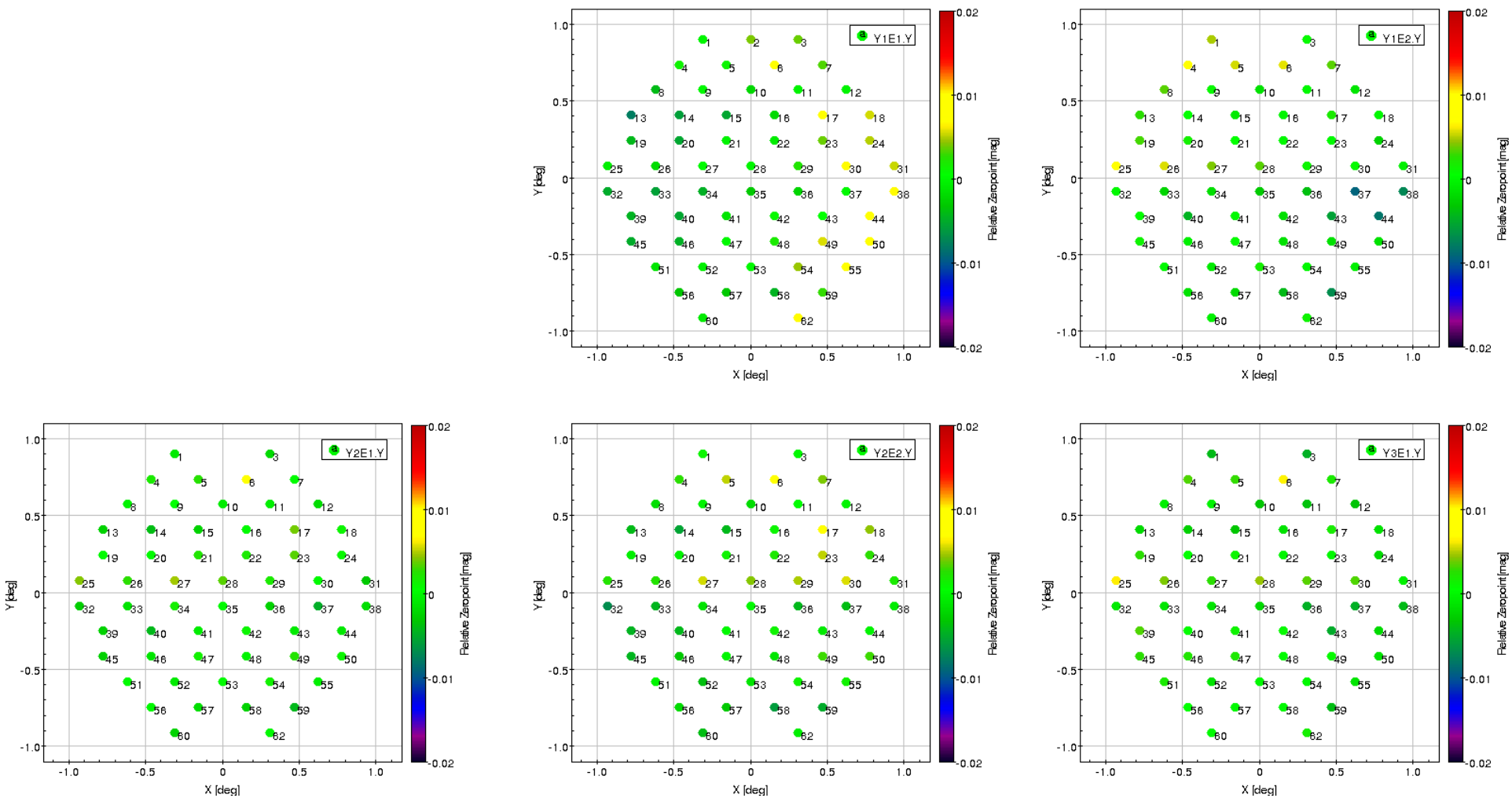
DARK ENERGY SURVEY



Photometric Night Exposures: Y-band

(applying D. Finley's RASICAM/TASCA/aTmCam Nightly Grades)

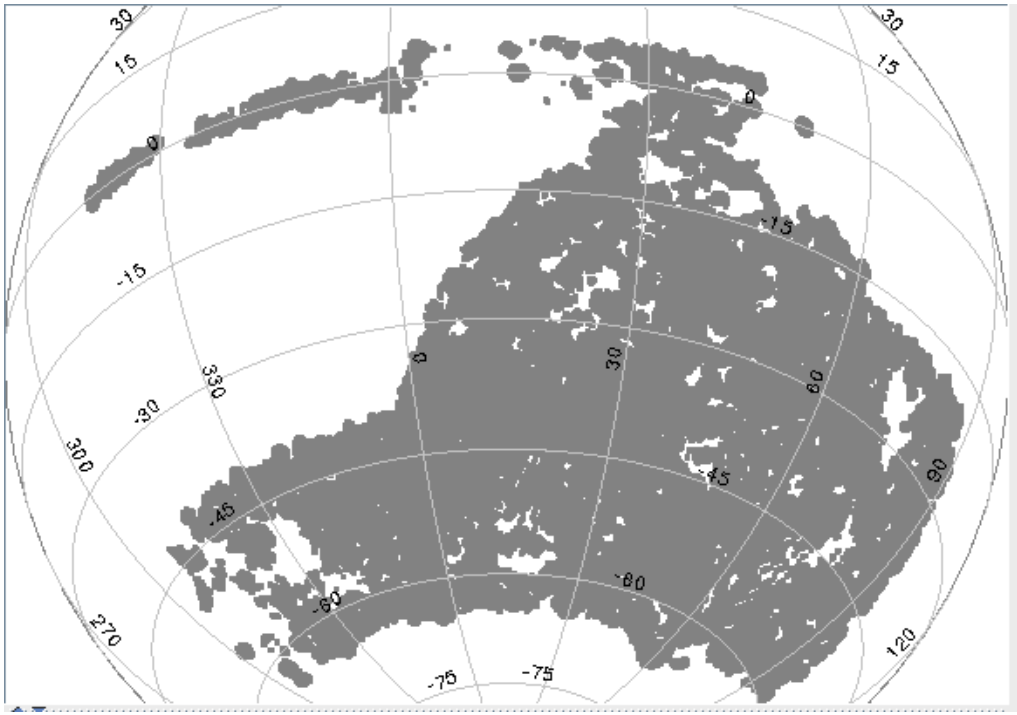
DARK ENERGY SURVEY



DARK ENERGY
SURVEY

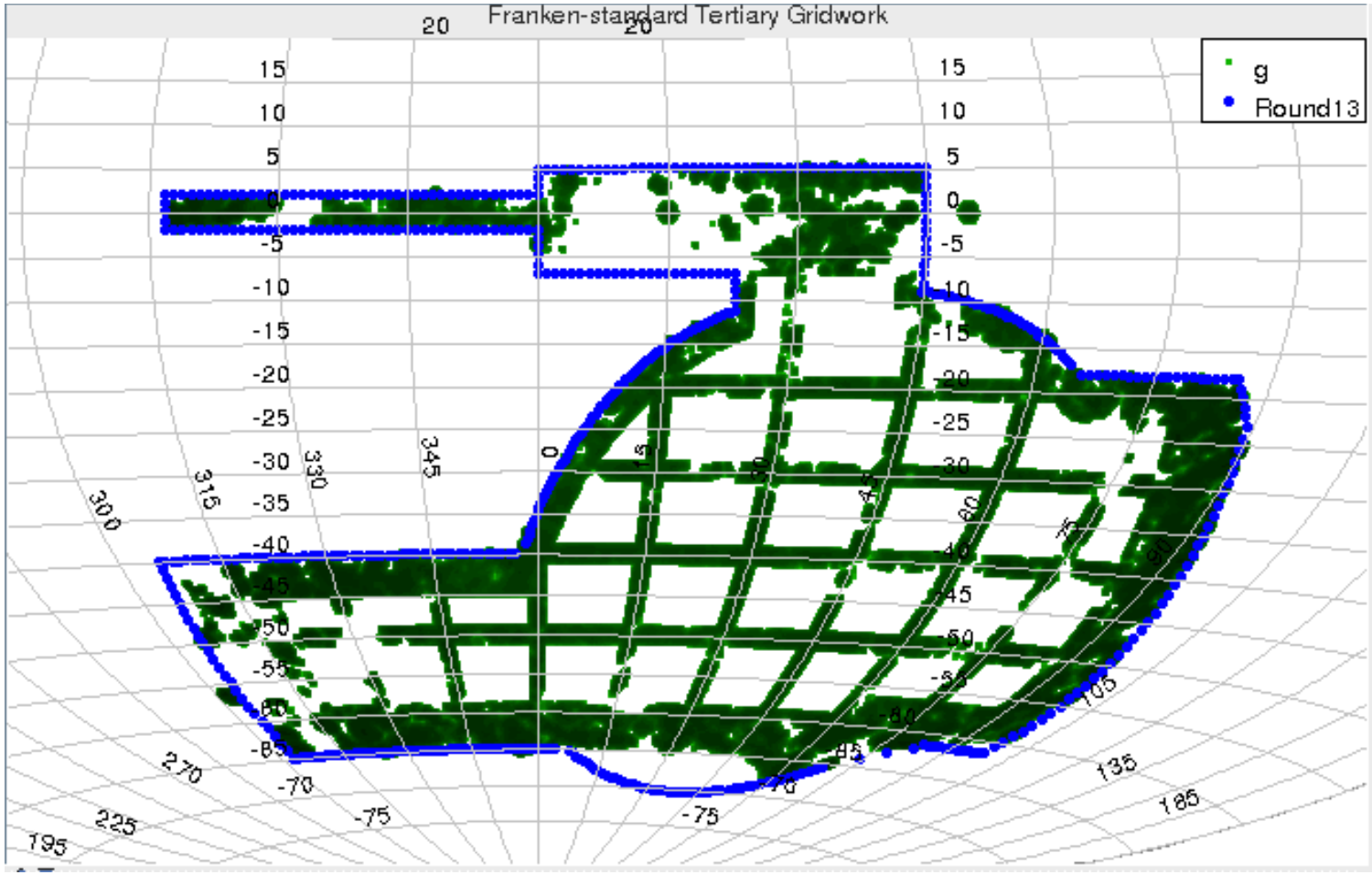
2. Franken-standard Gridwork

- Full set of Franken-standards (g-band):



- Want a sparse gridwork to anchor against photometric gradients on large scales (>> 10 deg) but enable tight relative calibrations on small scales (< 10 deg).

2. Franken-standard Gridwork



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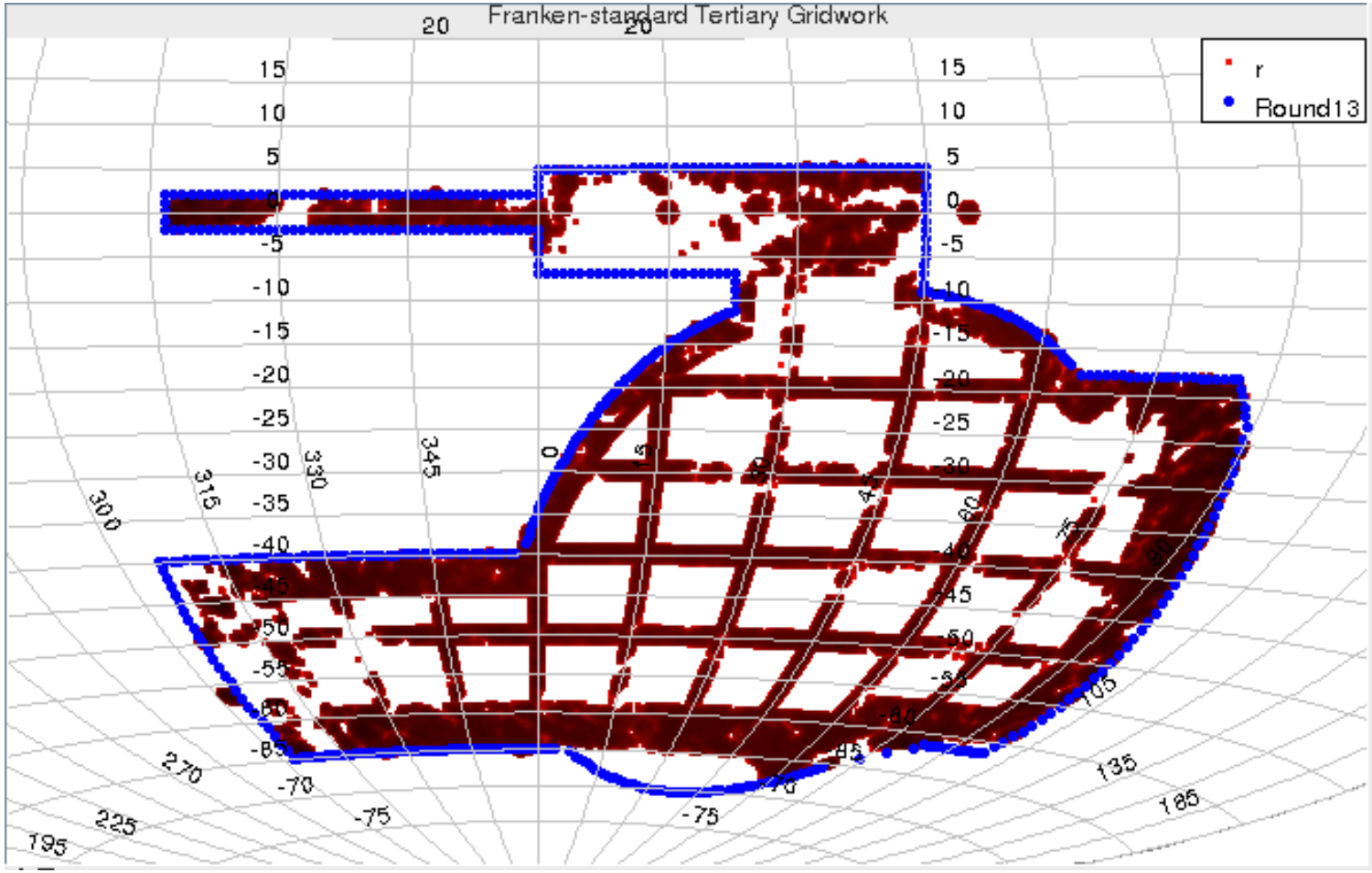

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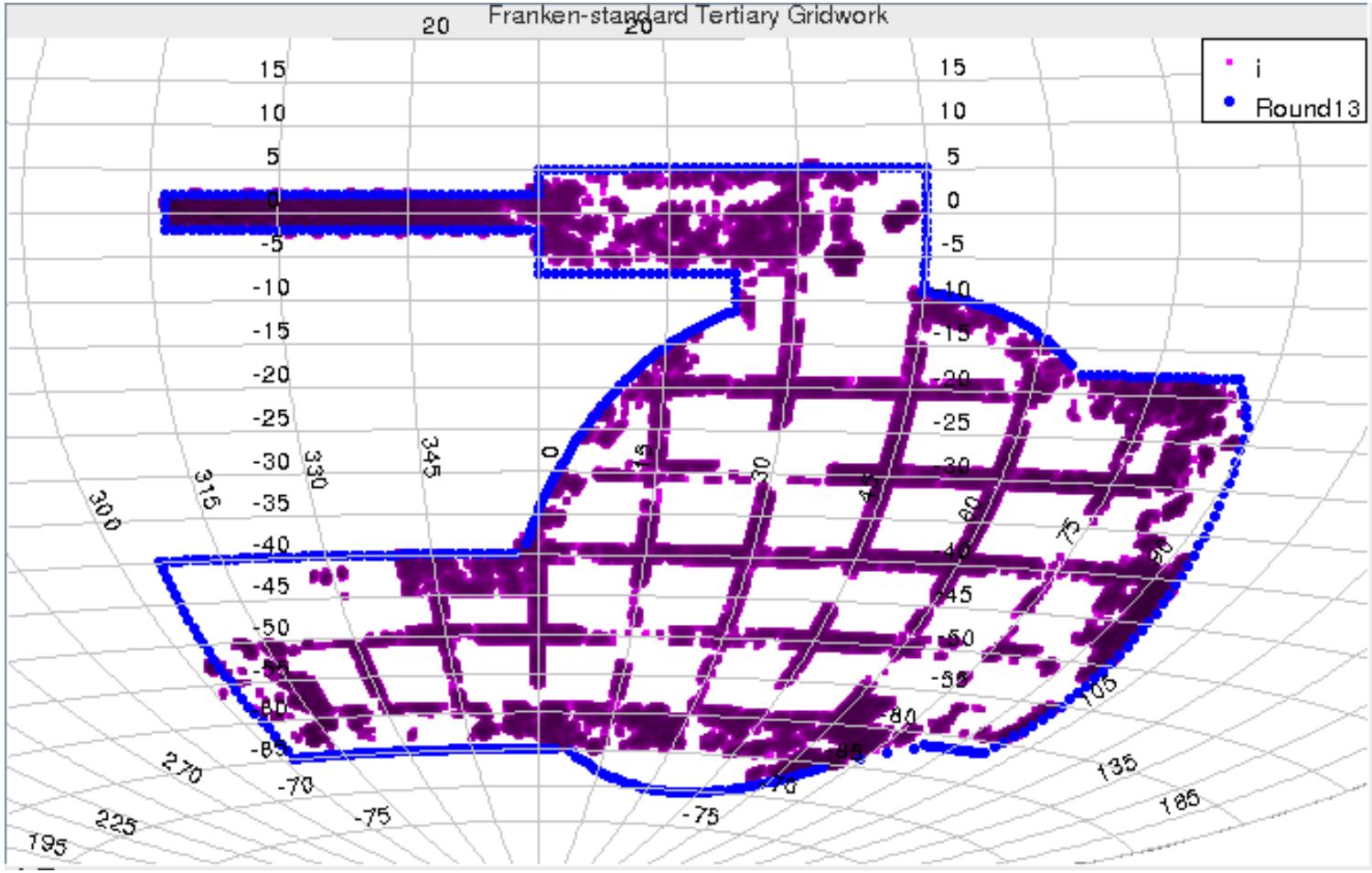

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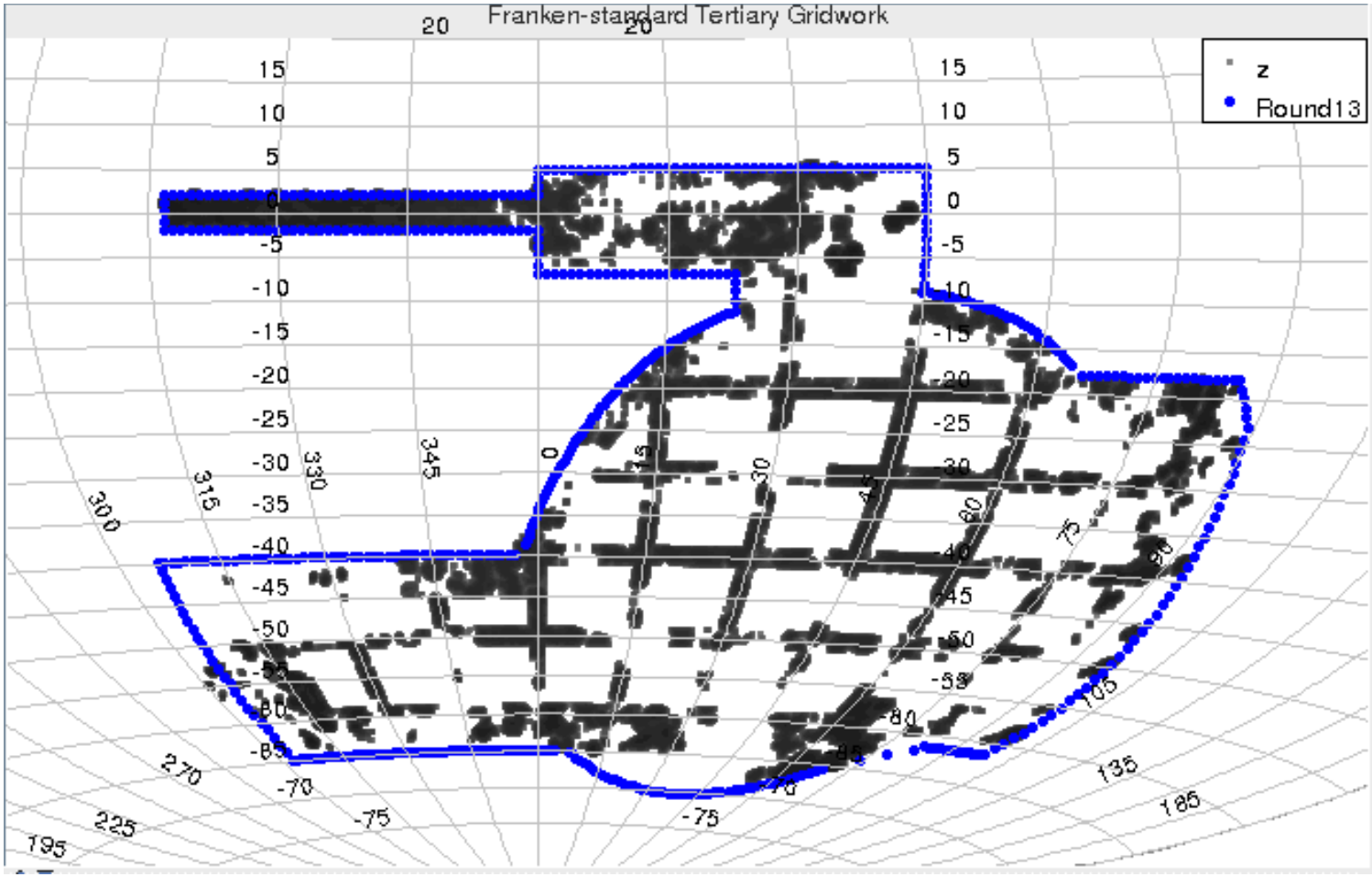
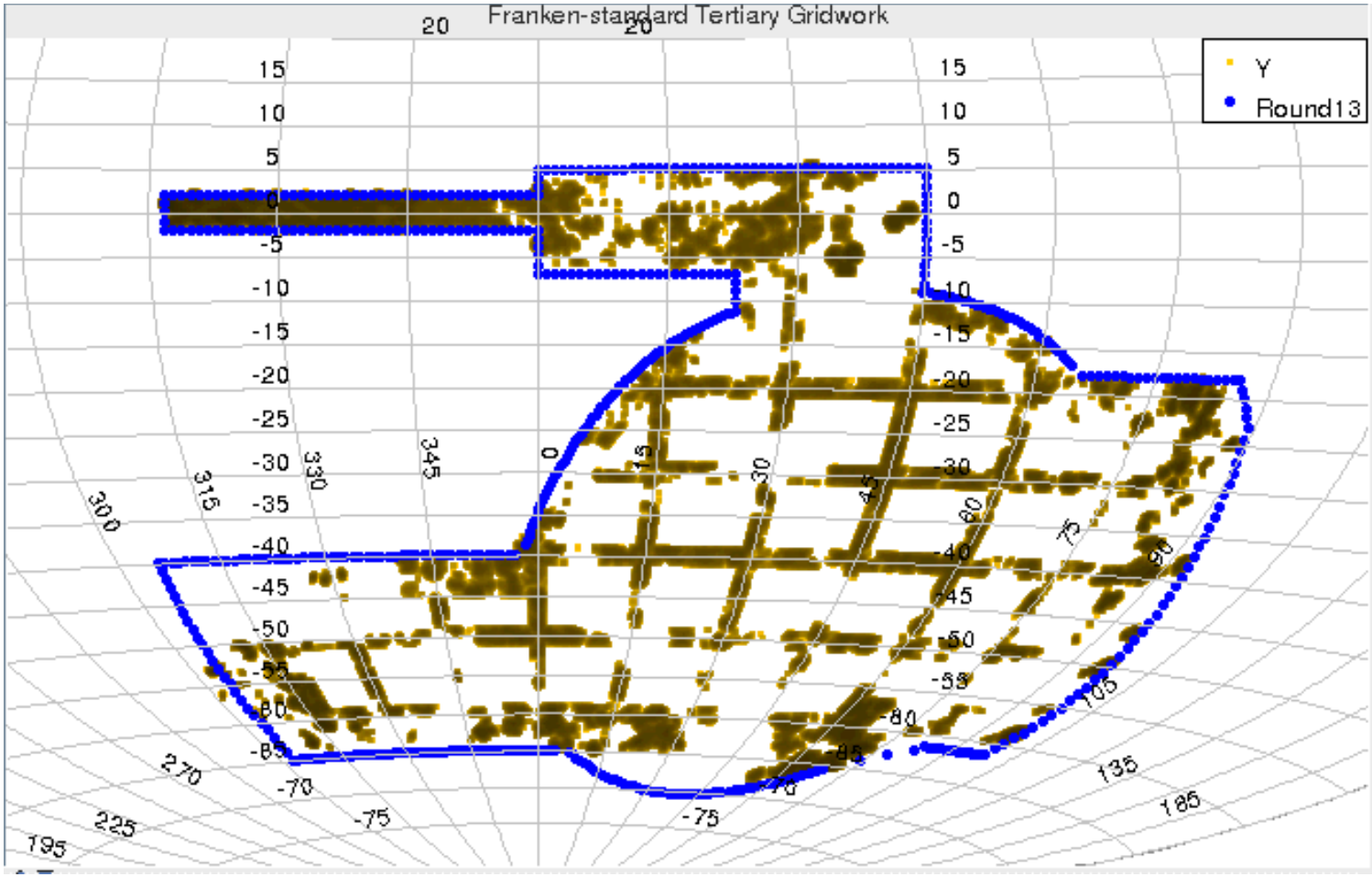
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