SHARDS/CANDELS catalogs

- progress report -

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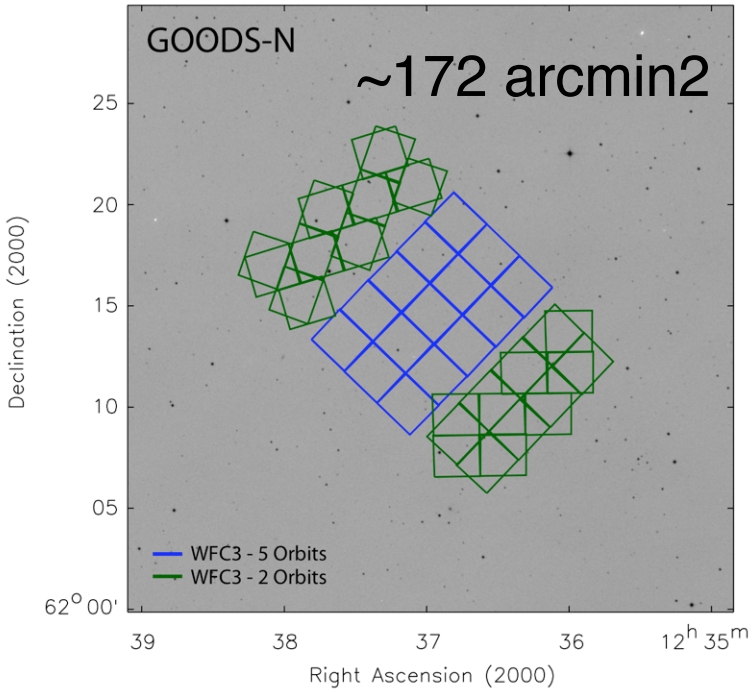
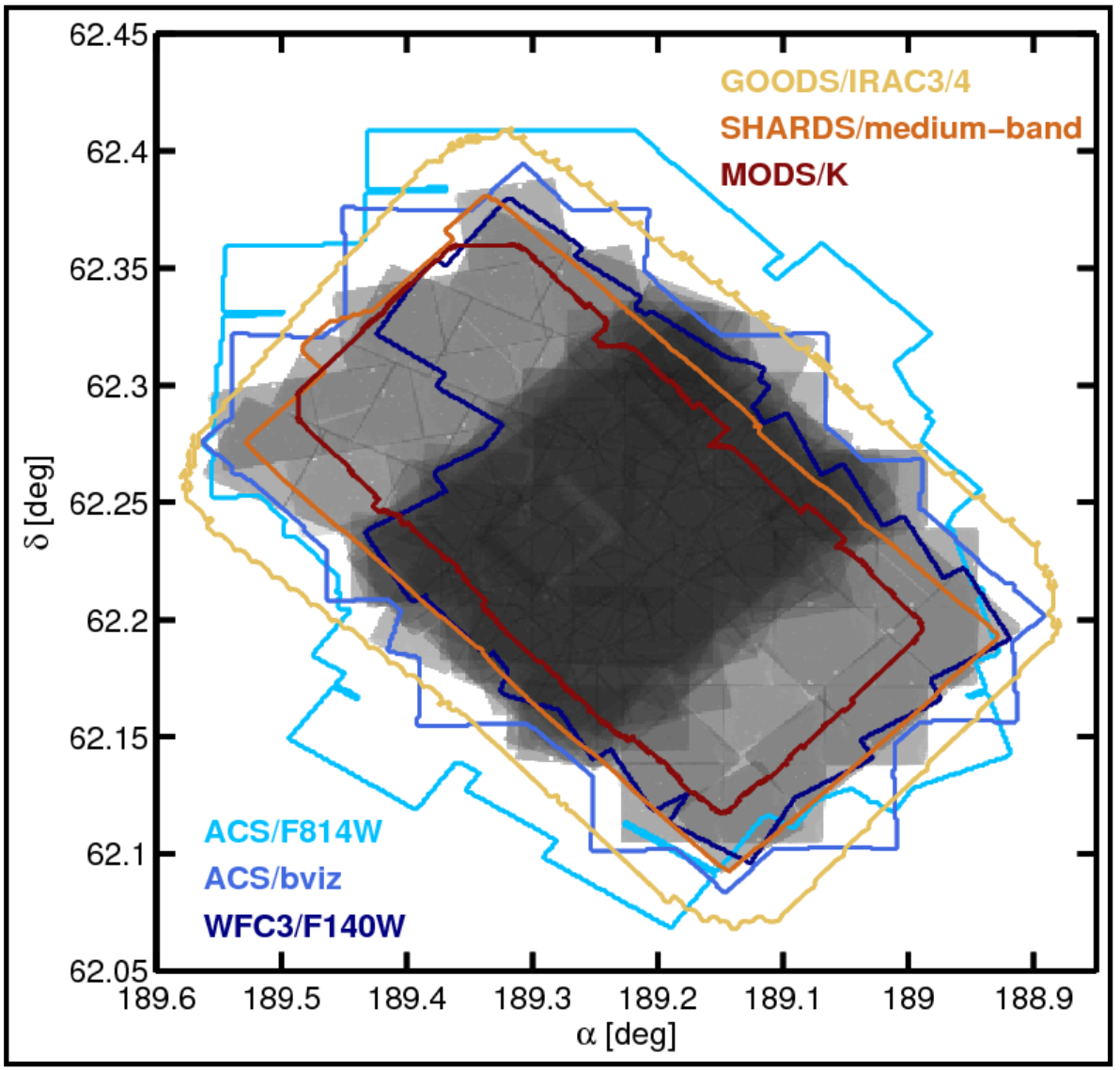
Photometry



HST/ACS (bviz, F814W),
HST/WFC3 (YJH, F140W),
~~Subaru/SuprimeCam (UBVRiz),~~
CFHT/WIRCam (K), MODS (K)
Spitzer/IRAC (4)
+ (25) SHARDS



Photometric catalog

- F160W (H-band) selected 35,000 sources (12k < H=25)
- CANDELS photometric pipeline (Galametz+13, Guo+13)

Photometric catalogs

High-res (WFC3/ACS) psf-match pipeline

1) Sextractor cold+hot merge
2) Empirical/Synthetic/Hybrid PSFs
3) Sextractor dual run

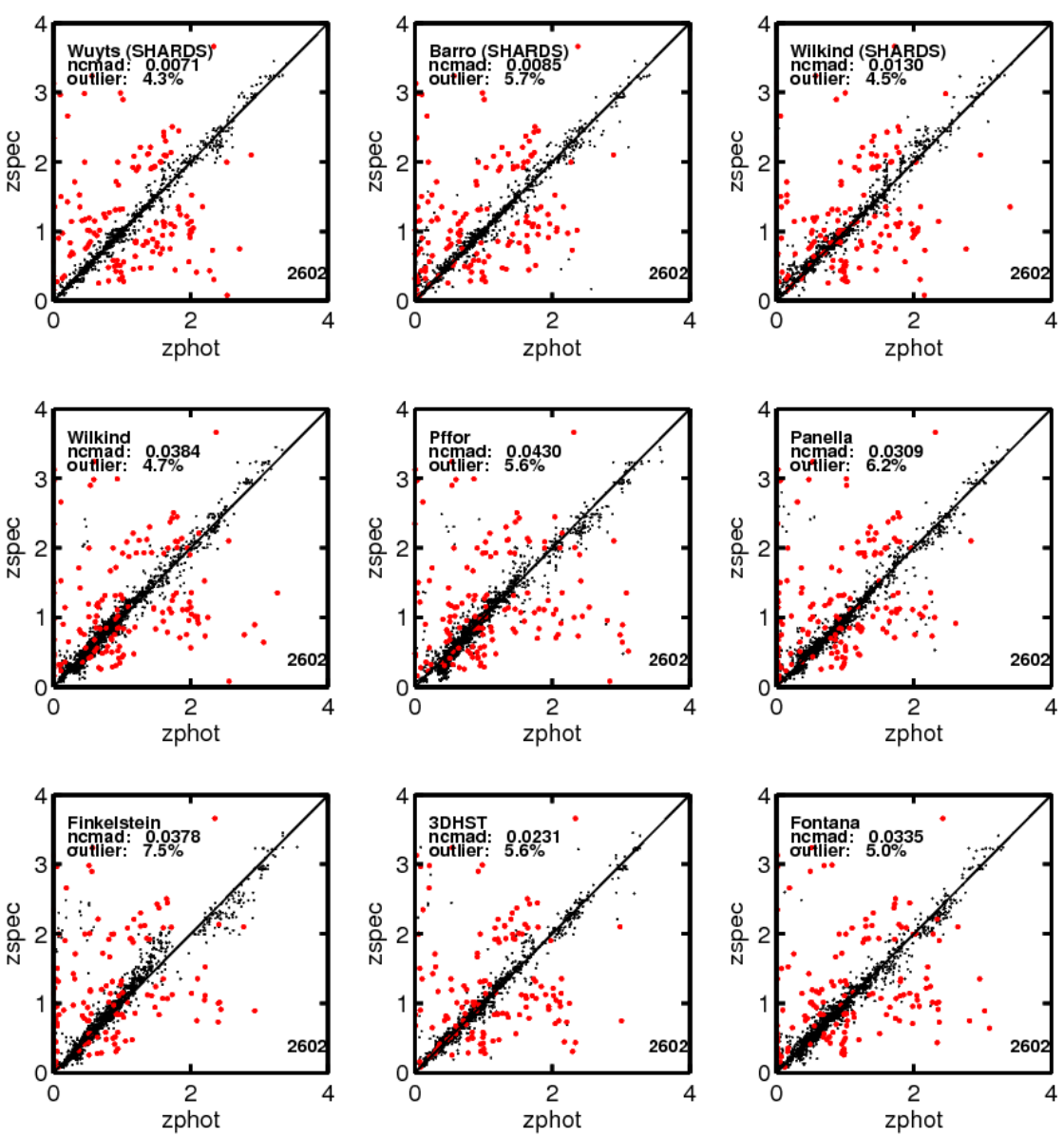
Low-res (ground-based, IRAC) TFIT pipeline

1) Background subtraction and rms map check
(pyraf scripts)
2) Pixel scale & Orient
(swarp)
3) Empirical PSF & Kernel
(iraf/IDL + iraf/psfmatch)
4) TFIT run (2 passes; dance step)

Photometric catalog

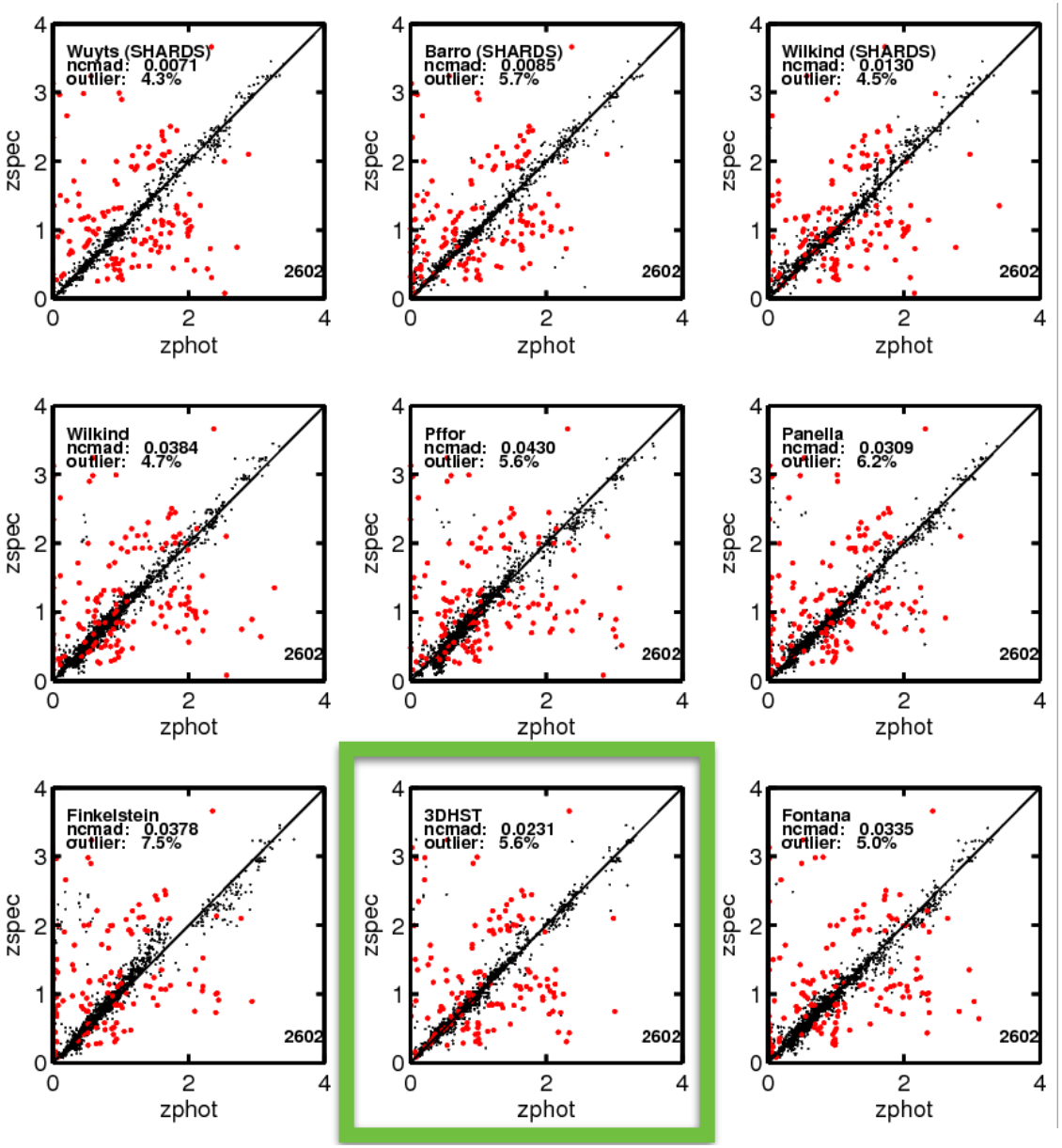
- F160W (H-band) selected 35,000 sources (12k < H=25)
- CANDELS photometric pipeline (Galametz+13, Guo+13)
  - PSF-match + TFIT (HST PSF-matched images available)
  - HST images at 0.03''/px also exist
- *Next version may include additional SHARDS-detected sources*
- Complementary catalogs with Weights and Covariance of TFIT matches.

Photometric Redshifts



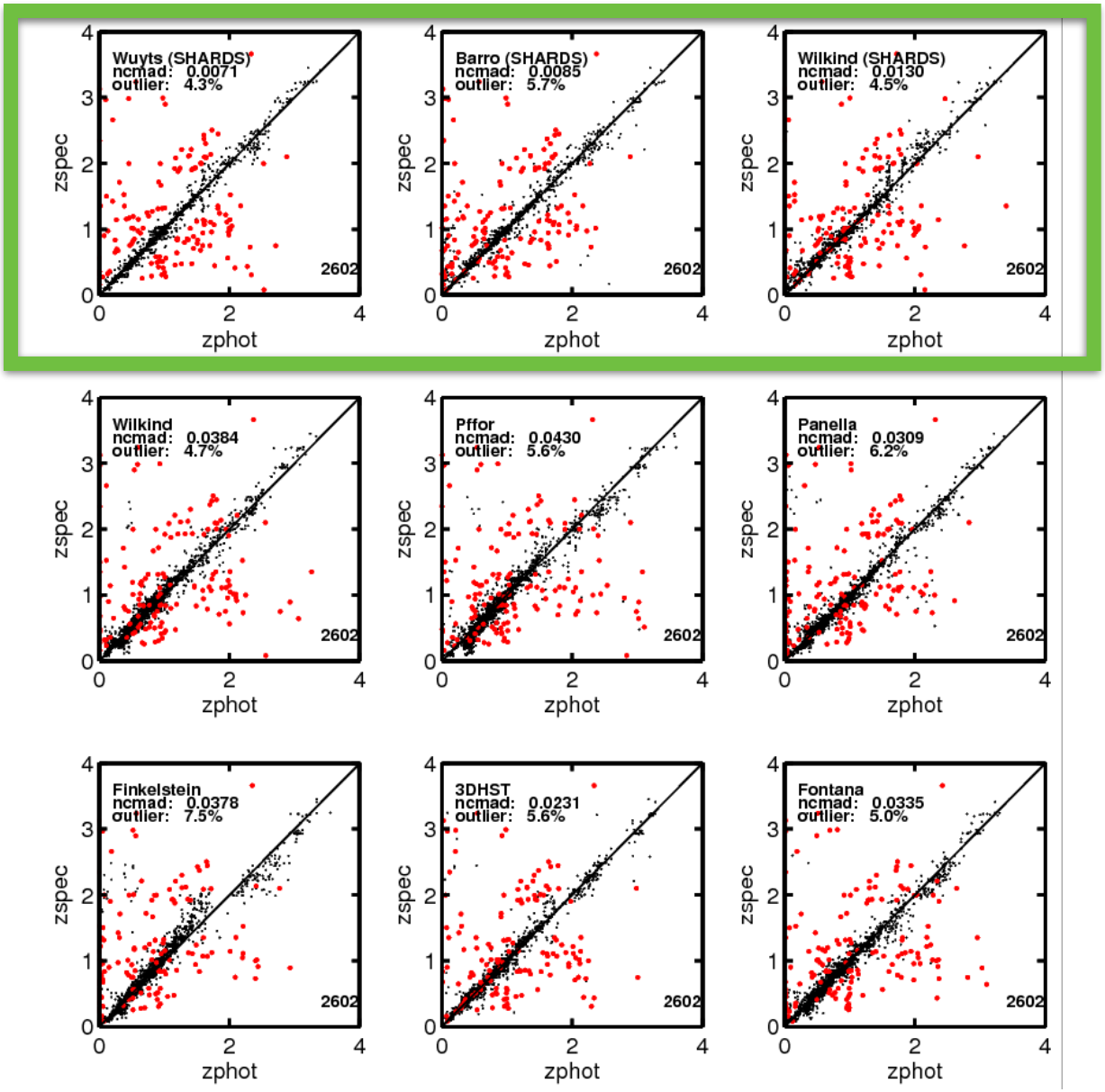
- Team Redshifts (Dahlen+13)

Photometric Redshifts



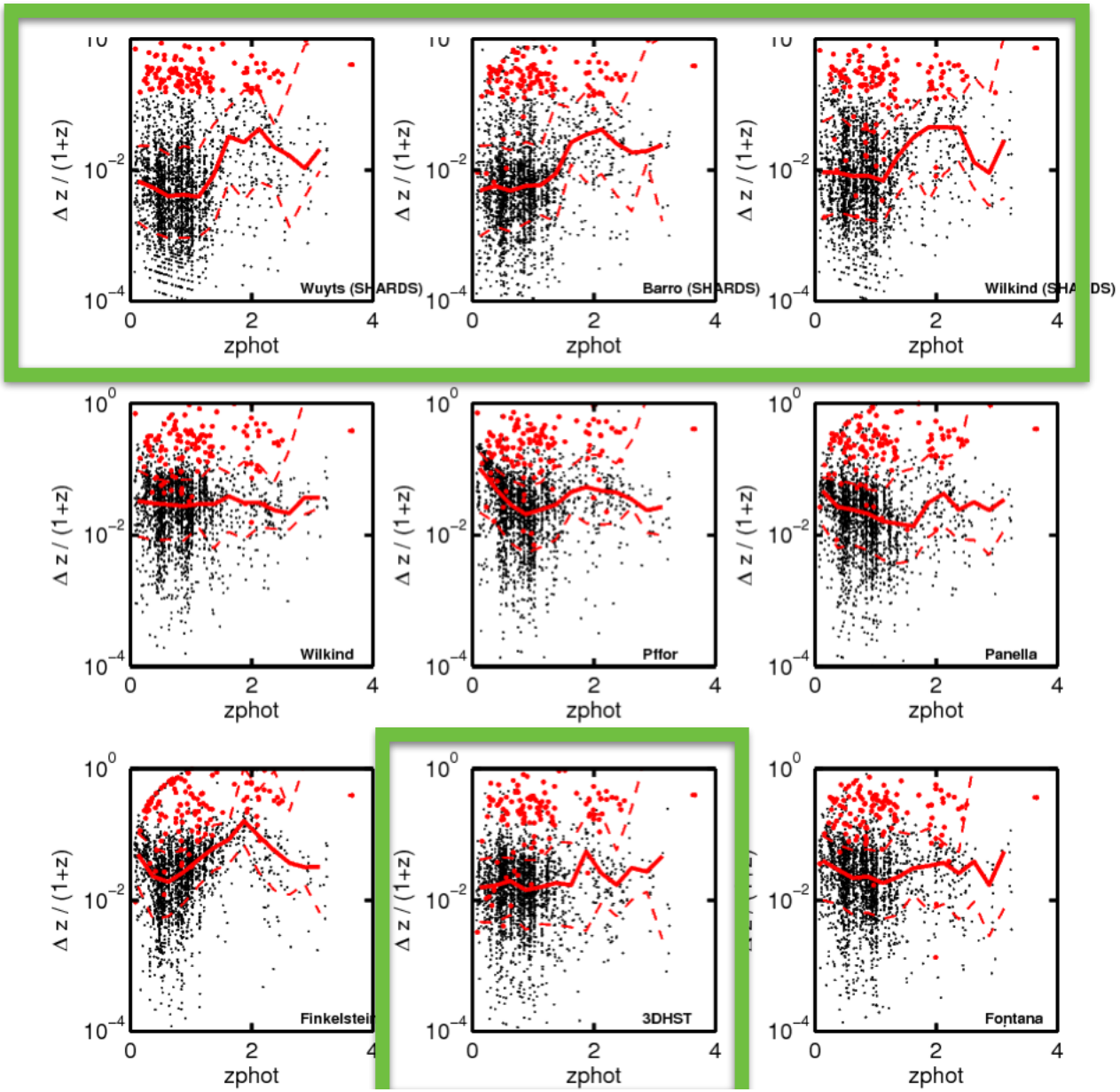
- Team Redshifts (Dahlen+13)
- Typical redshift quality 2-3%

Photometric Redshifts



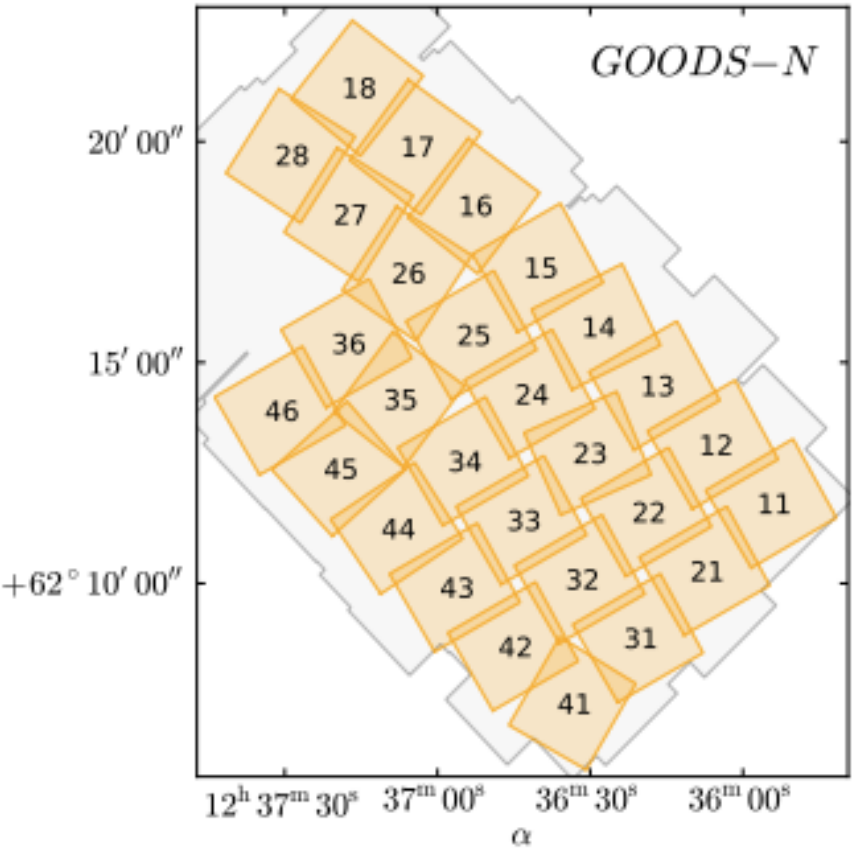
- Team Redshifts (Dahlen+13)
- Typical redshift quality 2-3%
- SHARDS's redshift quality 0.7%

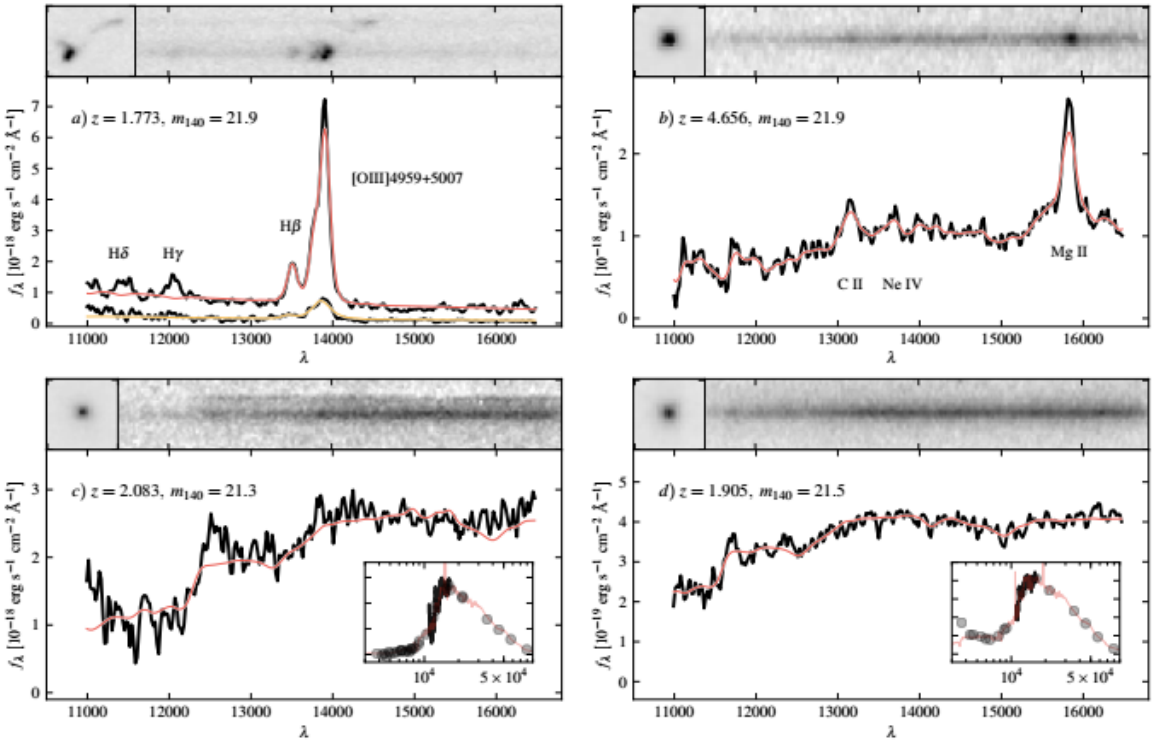
Photometric Redshifts



- Team Redshifts (Dahlen+13)
- Typical redshift quality 2-3%
- SHARDS's redshift quality 0.7%
- Substantial improvement at z<1.2 (4000 break no longer in SHARDS?)

SHARDS+HST-Grisms

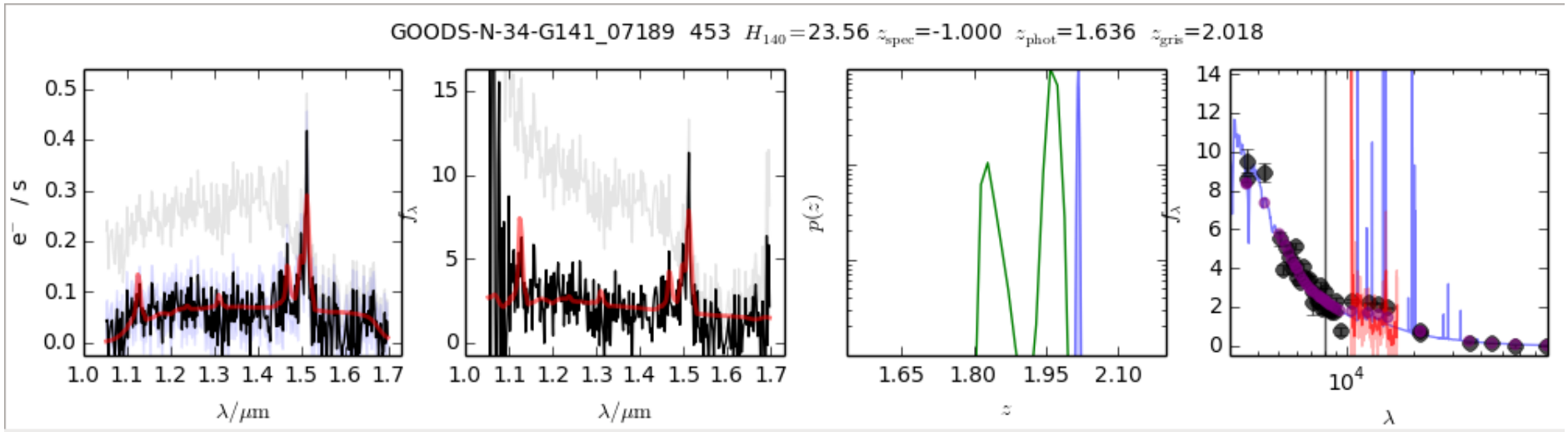




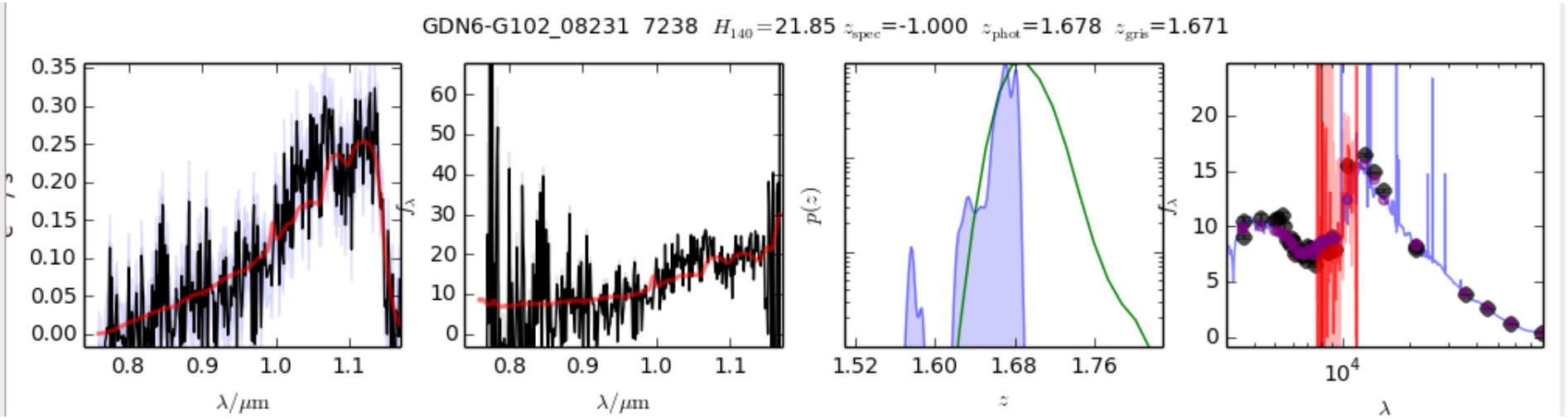
- 3D-HST in G141 and our G102 program

SHARDS+HST-Grisms

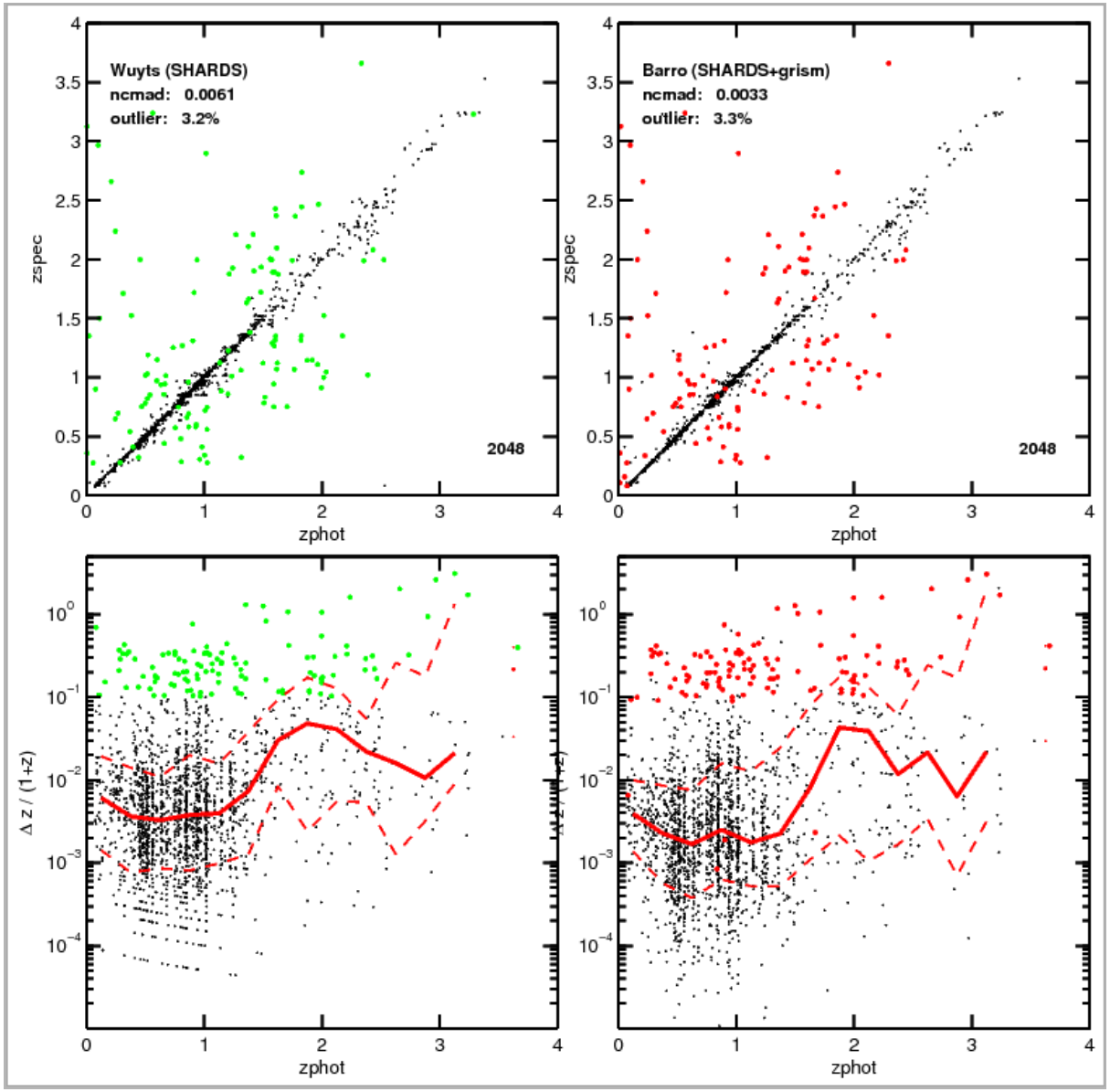
- Emission lines – Quasi Spec-z (line measurements)



- Higher resolution continuum – Better photo-z

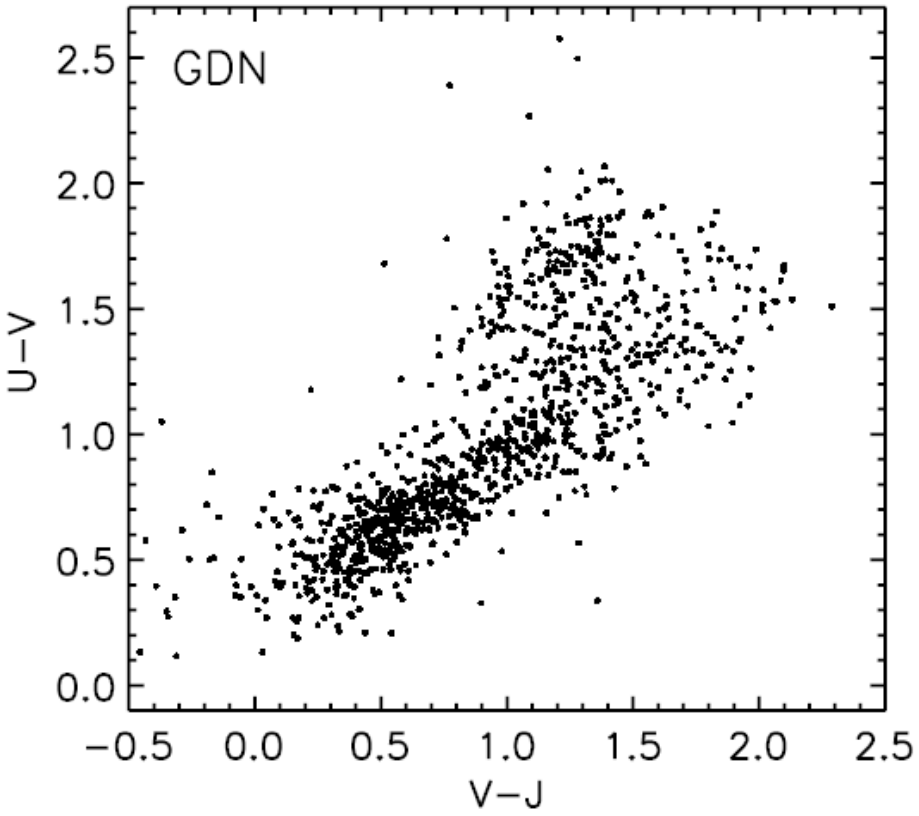


SHARDS+HST-Grisms



- SHARDS+grism-z = 0.3%
- Not 100% fair comparison, because of line-grism-z
- Not using G141 and G102 simultaneously
- Photo-z summary catalog with all measurements and best redshift for each source.

Additional properties

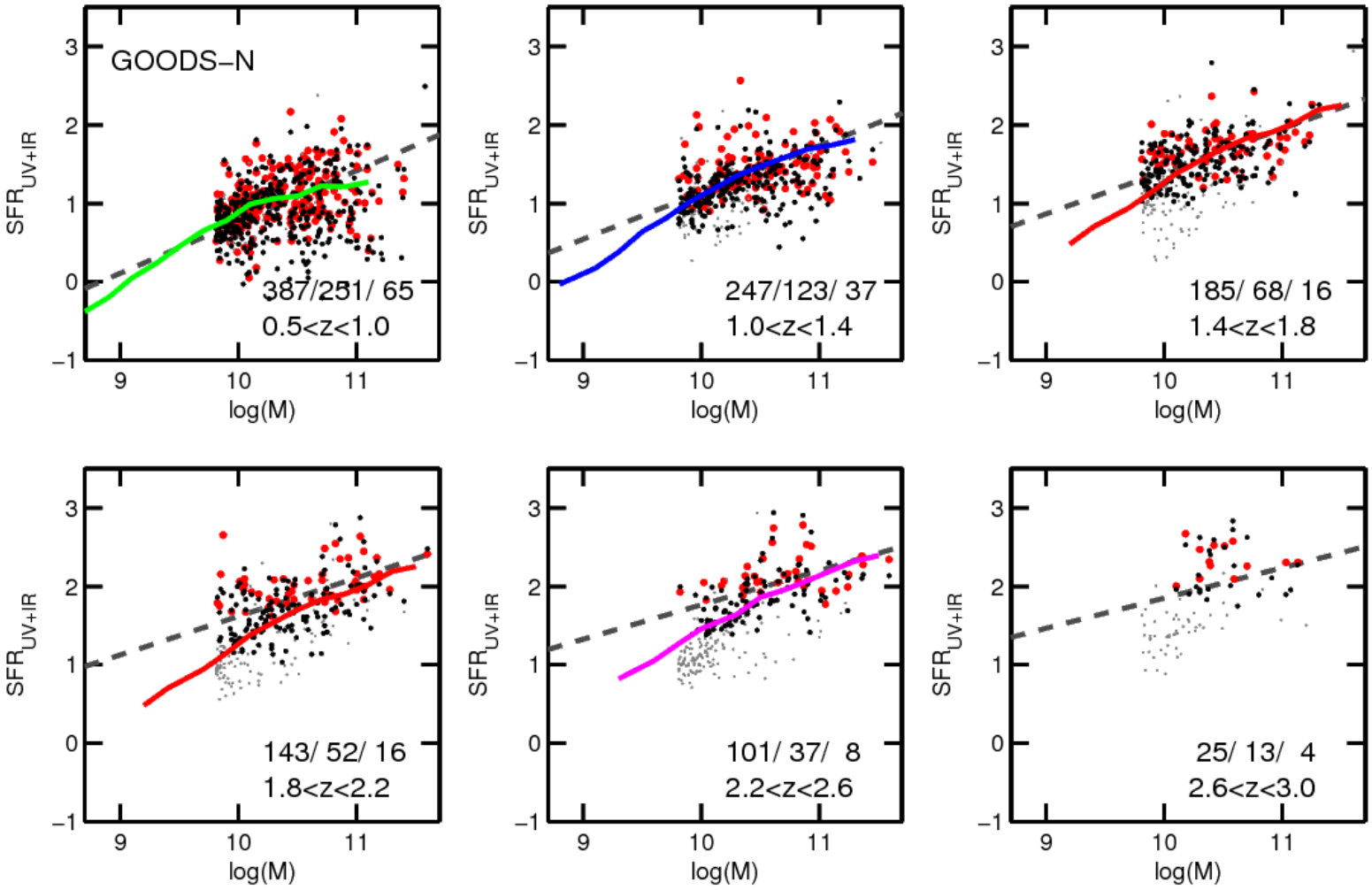


- Rest-frame colors from EAZY and Rainbow-synthcolor

- Stellar masses from 5 different methods (Santini+15; Mobasher +15), including different SFHs (tau-dec, tau-inc, cte..etc) — Without SHARDS!

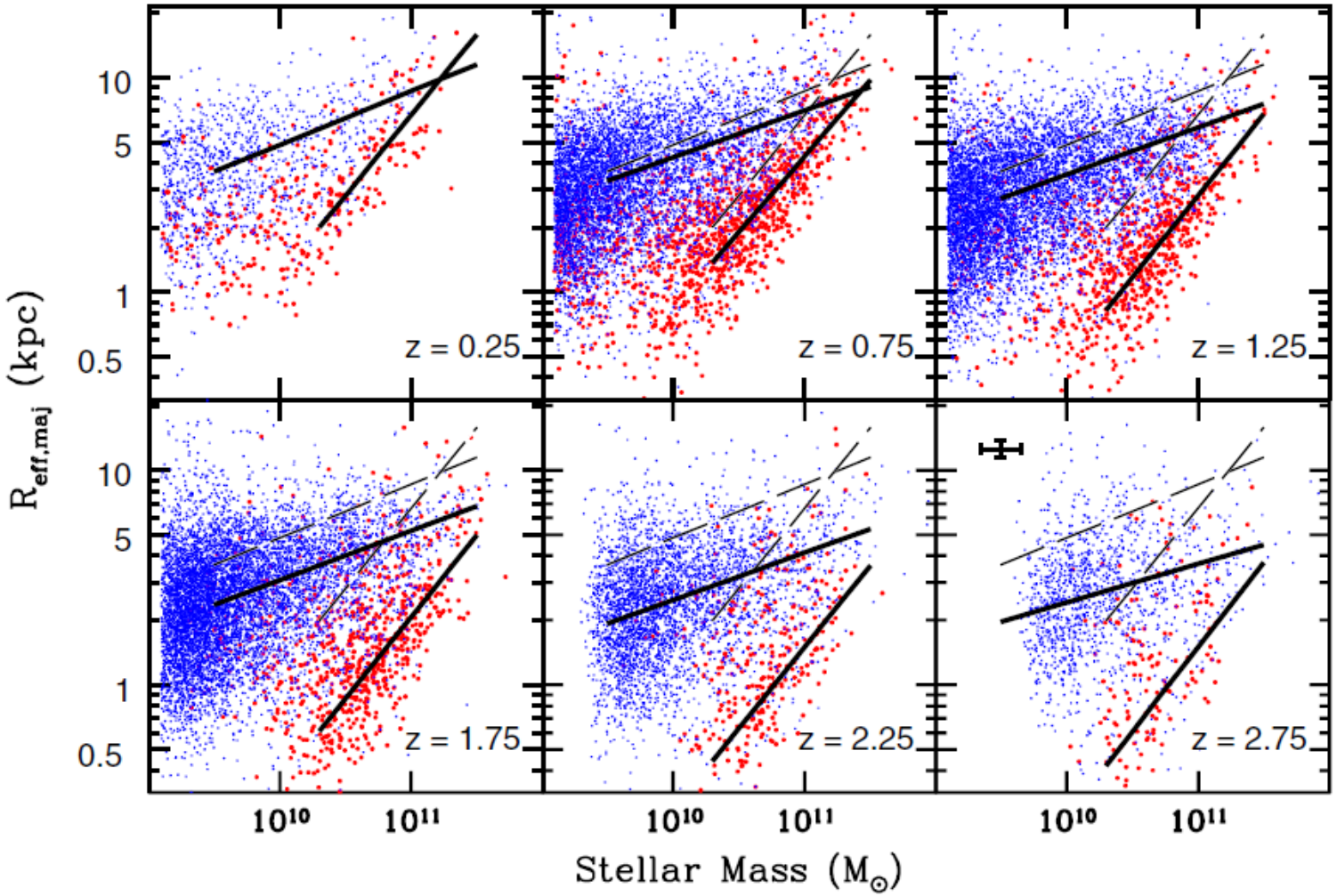
- Synthesizer stellar properties with SHARDS

Additional properties



- *ladder* UV+IR SFRs from Rainbow including Herschel

Additional properties



- GALFIT catalogs in Y, J and H (*van der Wel 2012*)

Access

- Rainbow access CANDELS_DR1private

http://rainbowx.fis.ucm.es/Rainbow_navigator_CANDELS/
(user/pass: candels/velas)

- Dropbox link to the ascii catalogs

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CANDELS.xx.F160W.v1_1.photom.cat    -- Multiwavelenght Photometry.
CANDELS.xx.F160W.v1_2.limcov.cat    -- Weight, covariance and limiting magnitudes in each band.
CANDELS.xx.F160W.v1_3.sext1.cat     -- Multi-band HST SExtractor outputs.
CANDELS.xx.F160W.v1_4.sext2.cat     -- Multi-band HST SExtractor aperture photometry.


CANDELS.xx.F160W.v1.photoz.cat      -- Photo-z : Official (median of different groups) and individual results.
CANDELS.xx.F160W.v1.mass.cat        -- Stellar Masses : Median and results from different groups/codes.
CANDELS.xx.F160W.v1.physpar.cat     -- Physical Properties : Other physical properties derived from SED-fitting.

CANDELS.xx.F160W.v1.rest_photom.cat -- Rest-frame colors : Eazy-based; There are other rest-frame magnitudes in physpar.
CANDELS.xx.F160W.v1.rest_photom.alt_filters.cat -- Rest-frame colors : Eazy-based; Alternative filters.
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https://www.dropbox.com/sh/obh94pjmttv0oiu/AADQE1oBTH52N4Wqq87KH_m1a?dl=0