

# CANDELS GOODS-N data paper - progress report -

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CANDELS and SHARDS teams

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# GOODS-N Data Paper

Paper draft available (SEDfit Trello Board)

Paper telecon in mid-May, hoping completion soon

Catalogs available in the 'Box Team Folder' (science grade, not final)

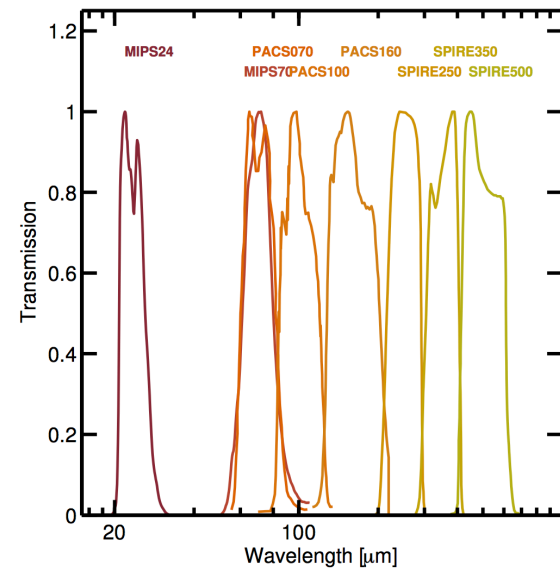
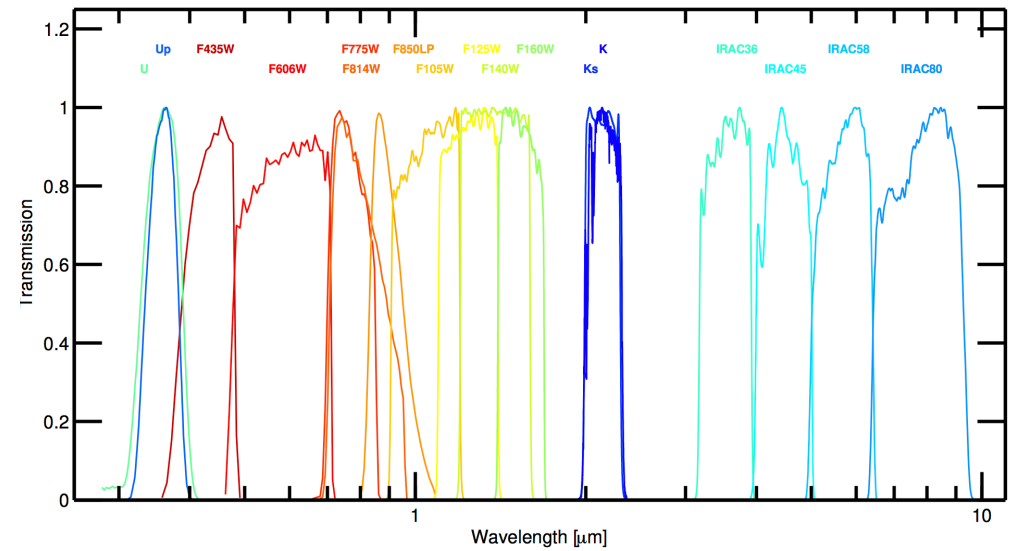
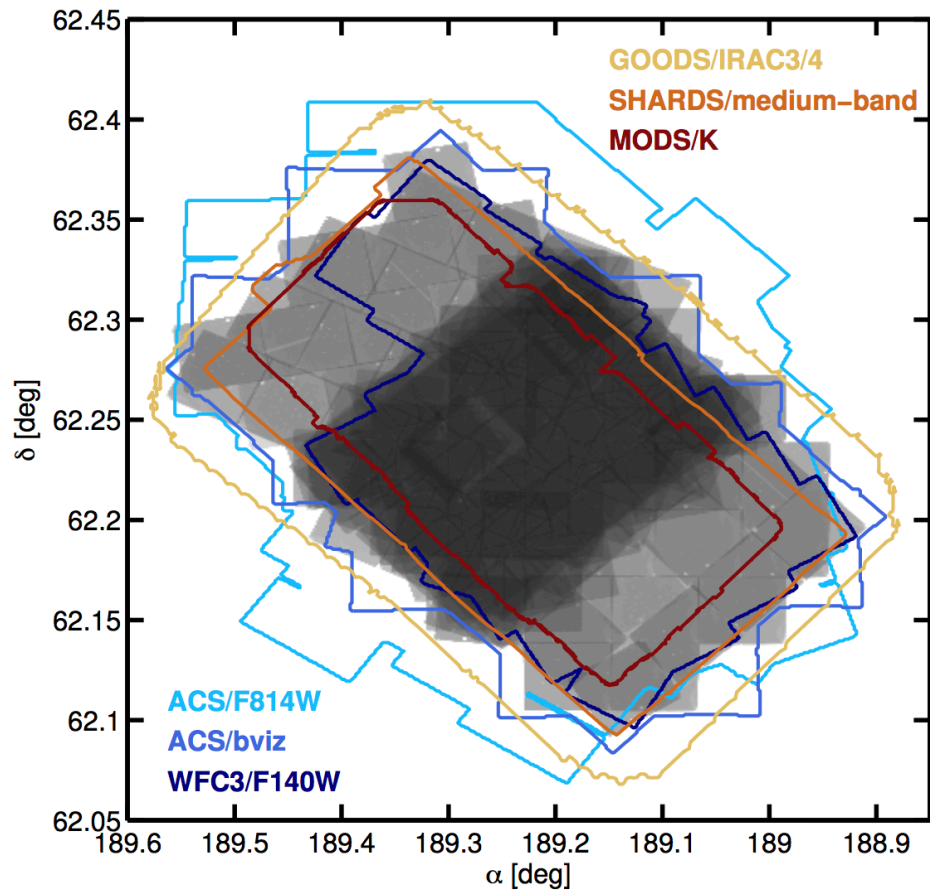
## Similarities

- HST detection (hot+cold)
- HST PSF matched dual photometry
  - 9 bands (5+4 Opt/NIR)
- TFIT of ground-based & IRAC data
- Output catalogs (already exist)
  - Fluxes
  - SE flux apertures
  - SE weights, lim mag, TFIT covar
- Diagnostics test (PSF, star detection, photometry, comparison vs. 3DHST)

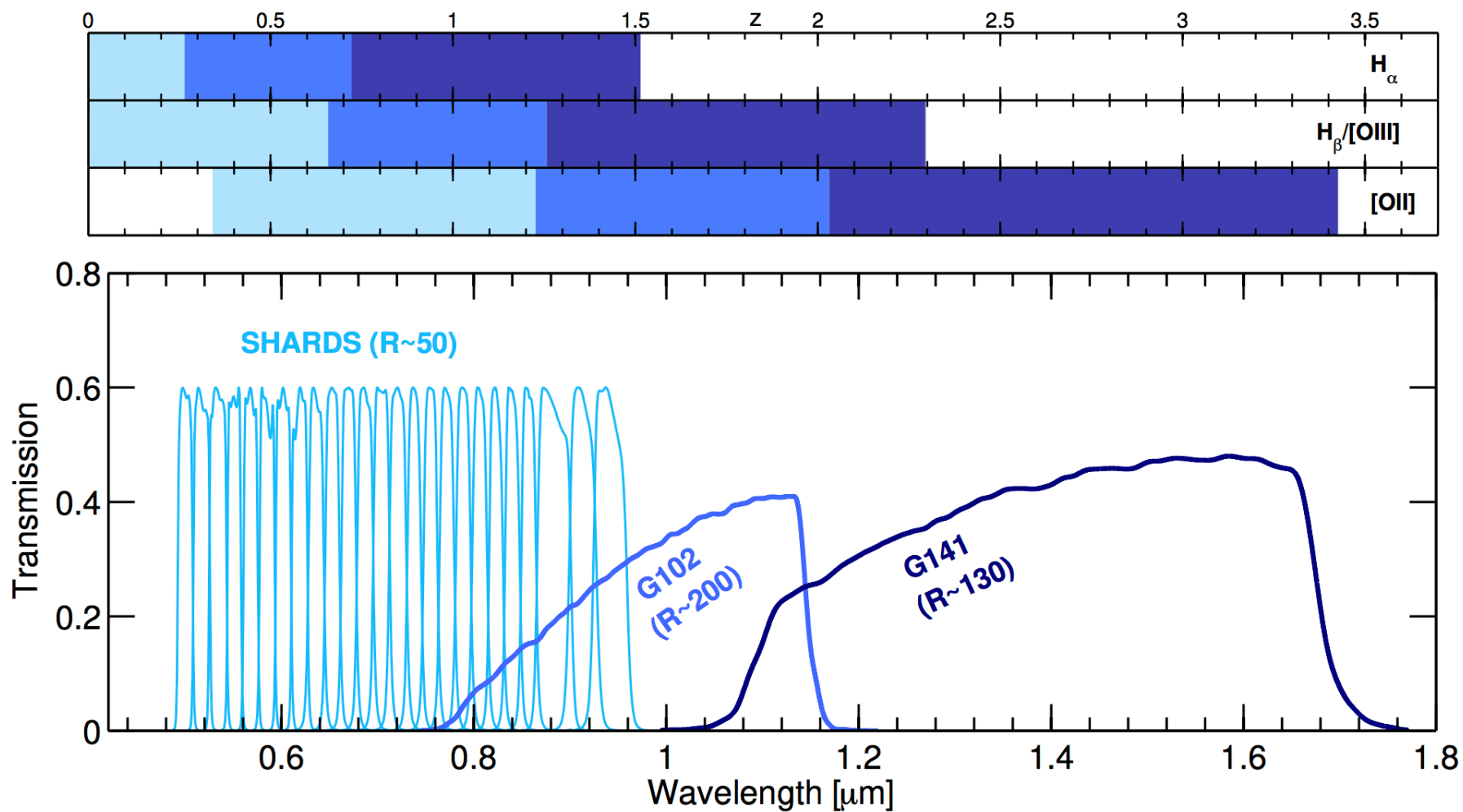
## Differences

- Additional UV data F275W
- SHARDS (25) medium bands
  - spatial dependence of  $\lambda$
- WFC3 Grism G102 + G141
  - 3-tier redshifts
  - emission line fluxes, EW
- Far IR photometry (Spitzer, Herschel) and UV+IR SFRs

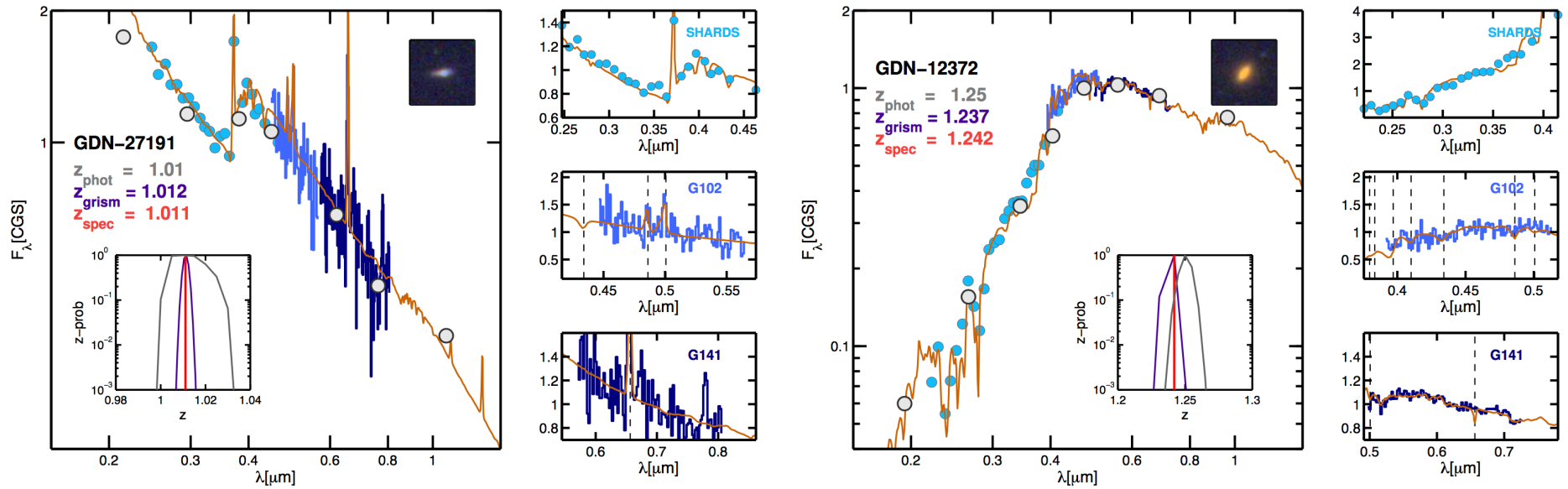
# GOODS-N area & filters



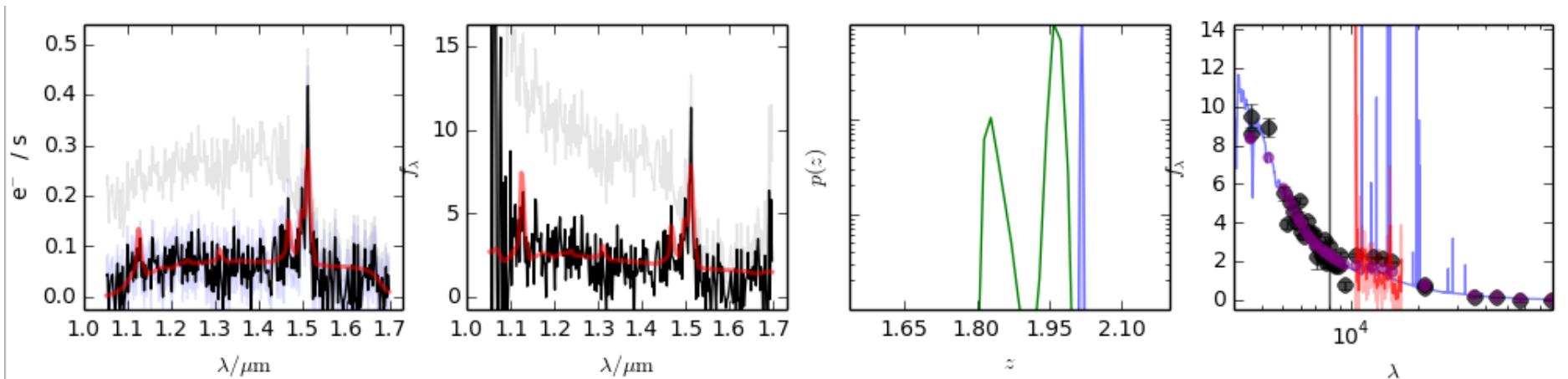
# High spectral resolution photometry

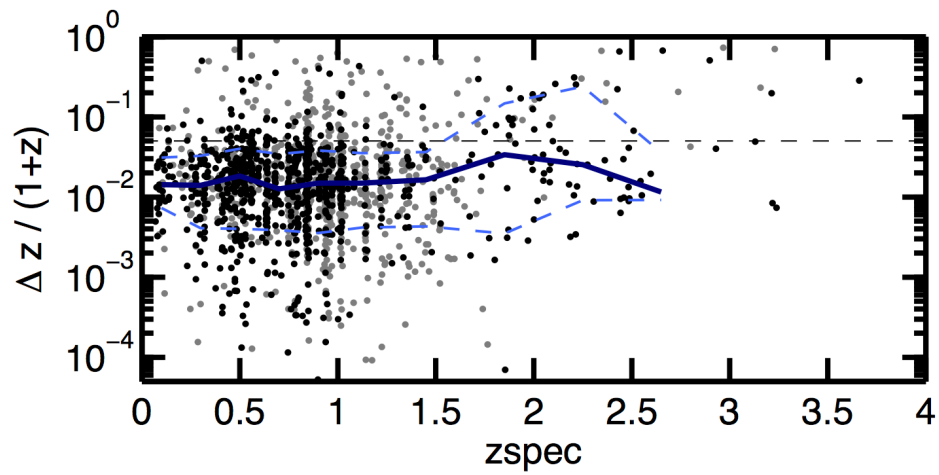
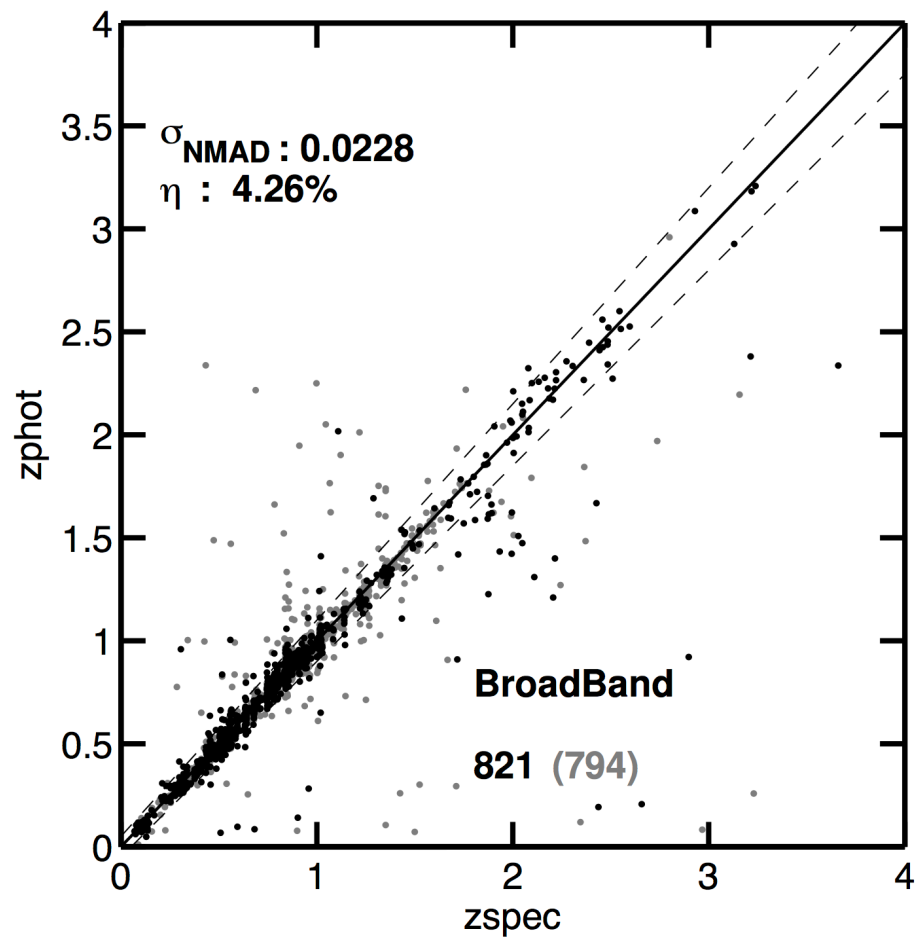


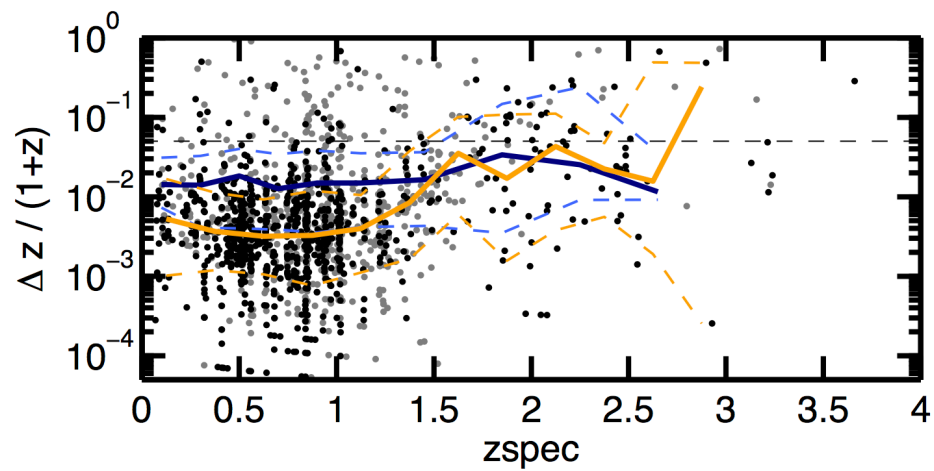
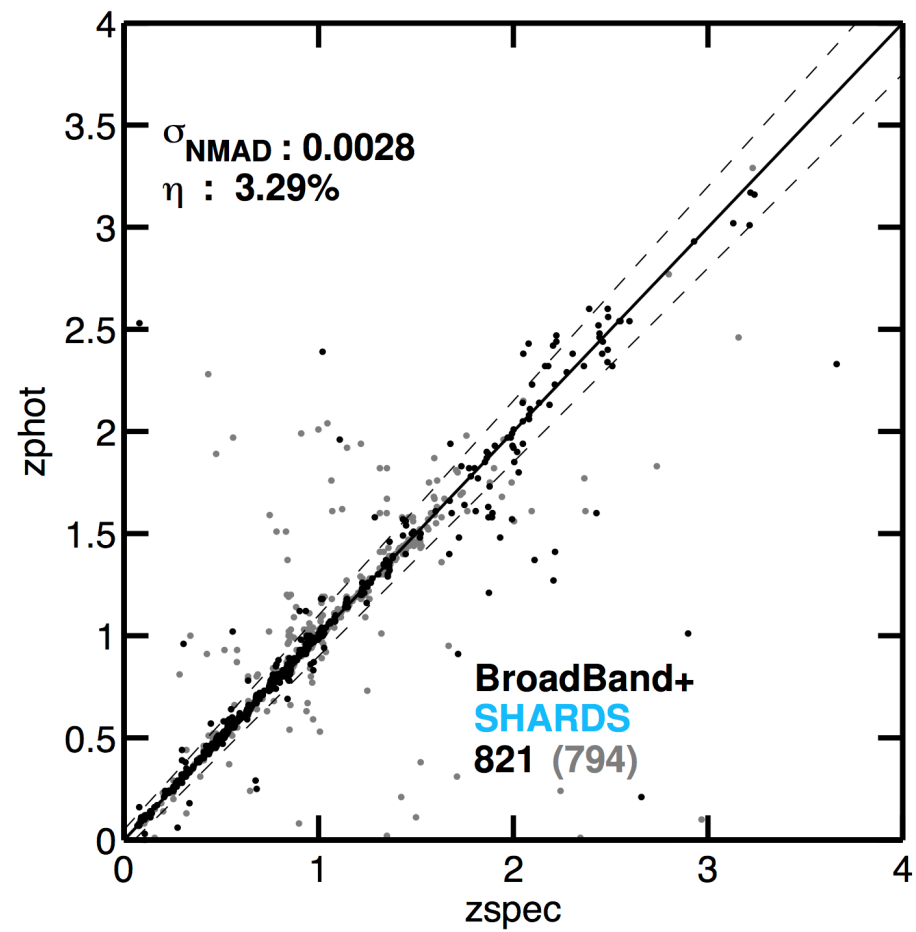
# Multiband SEDs

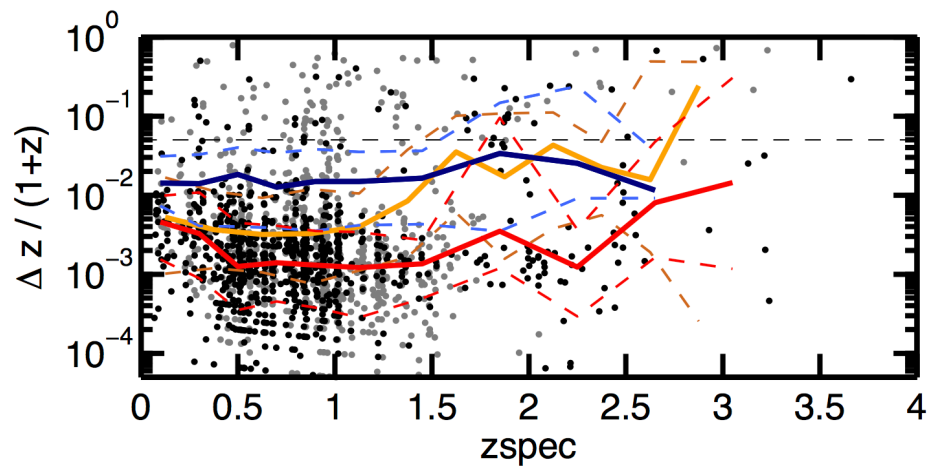
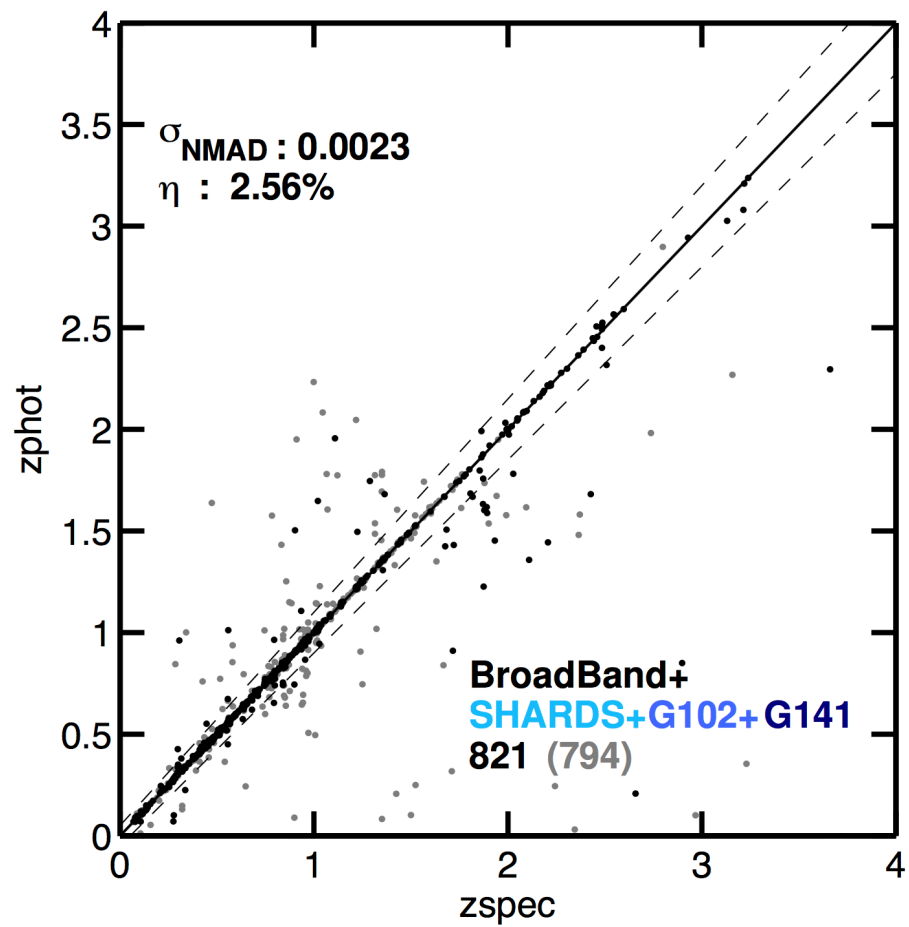


- Emission lines – Quasi Spec-z (line measurements)



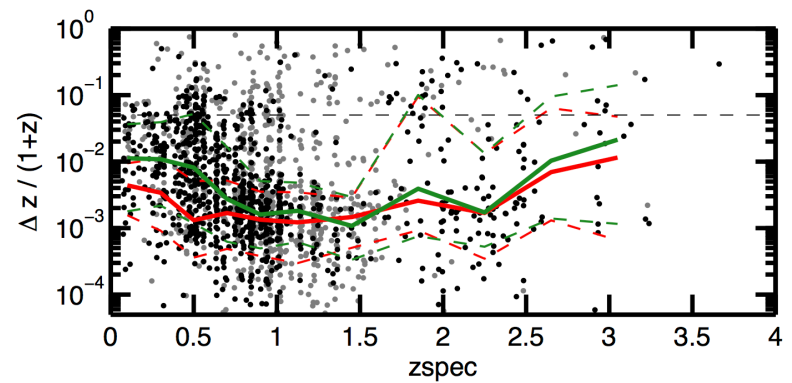
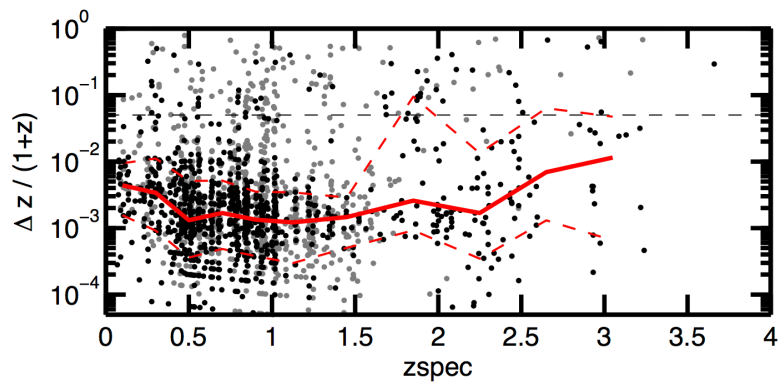
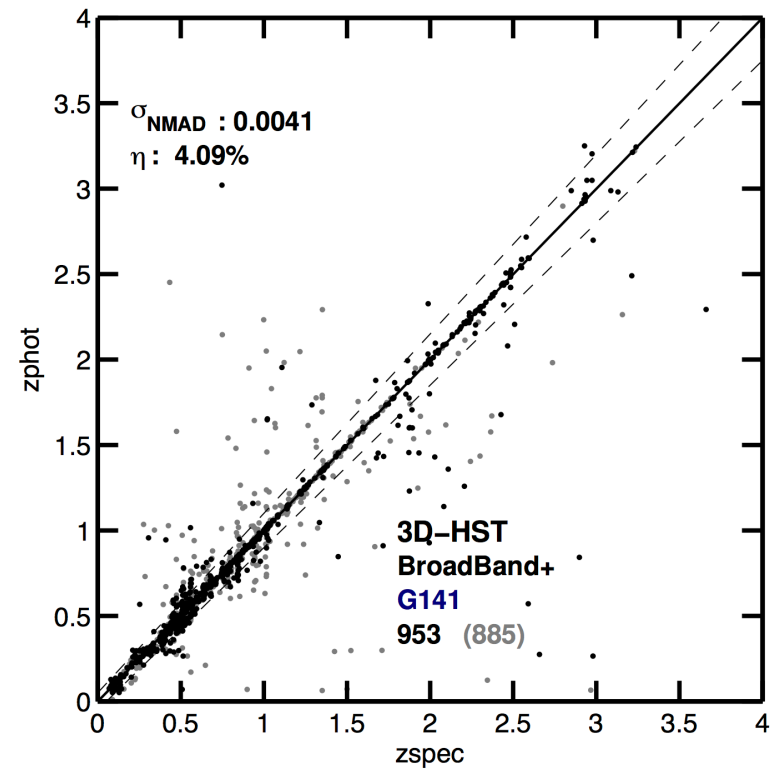
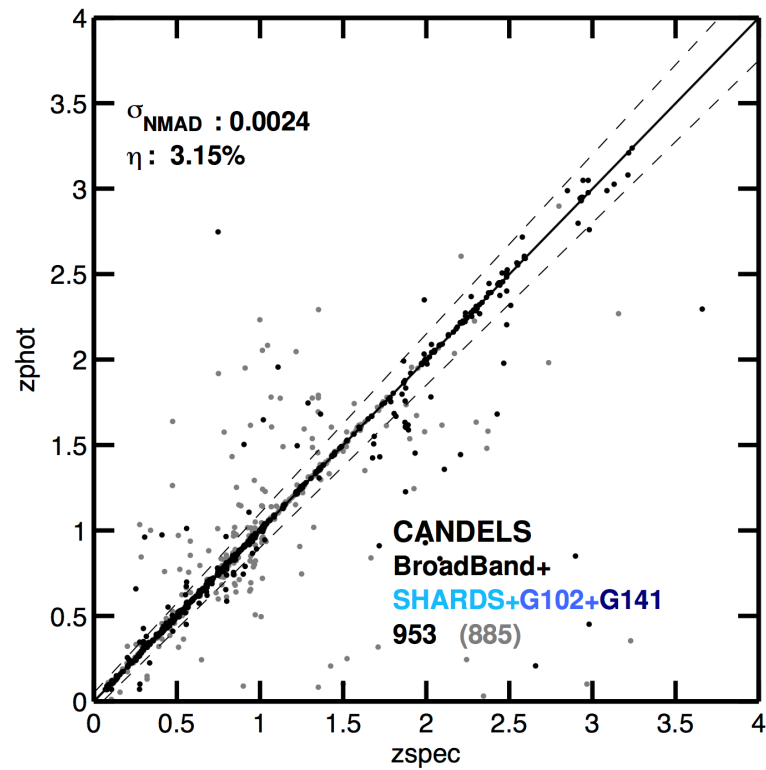




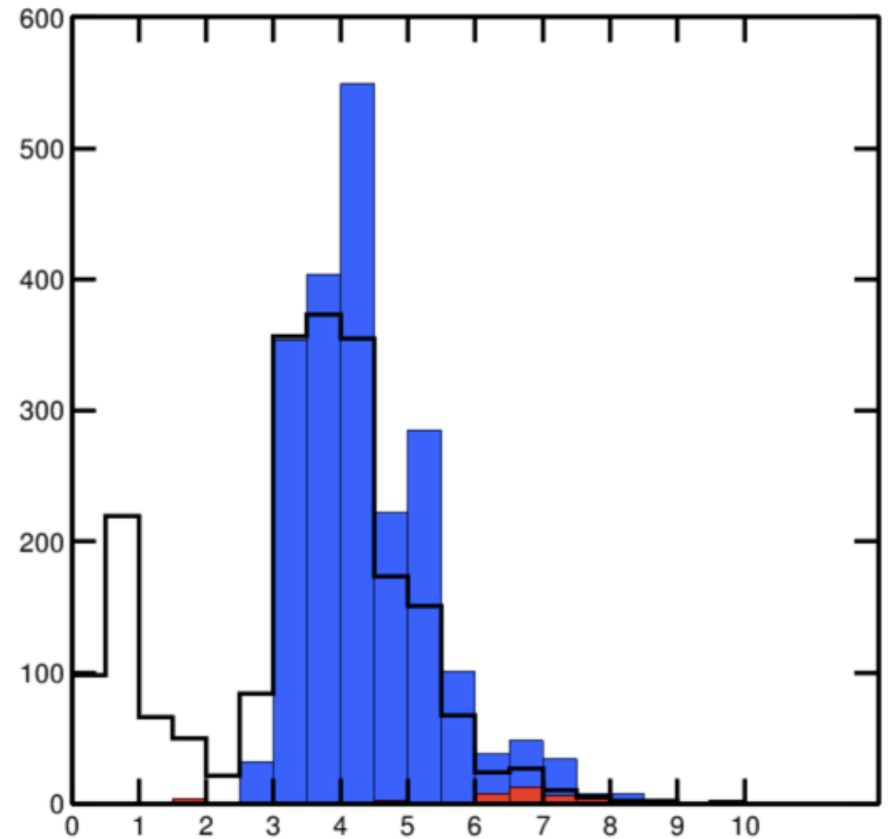
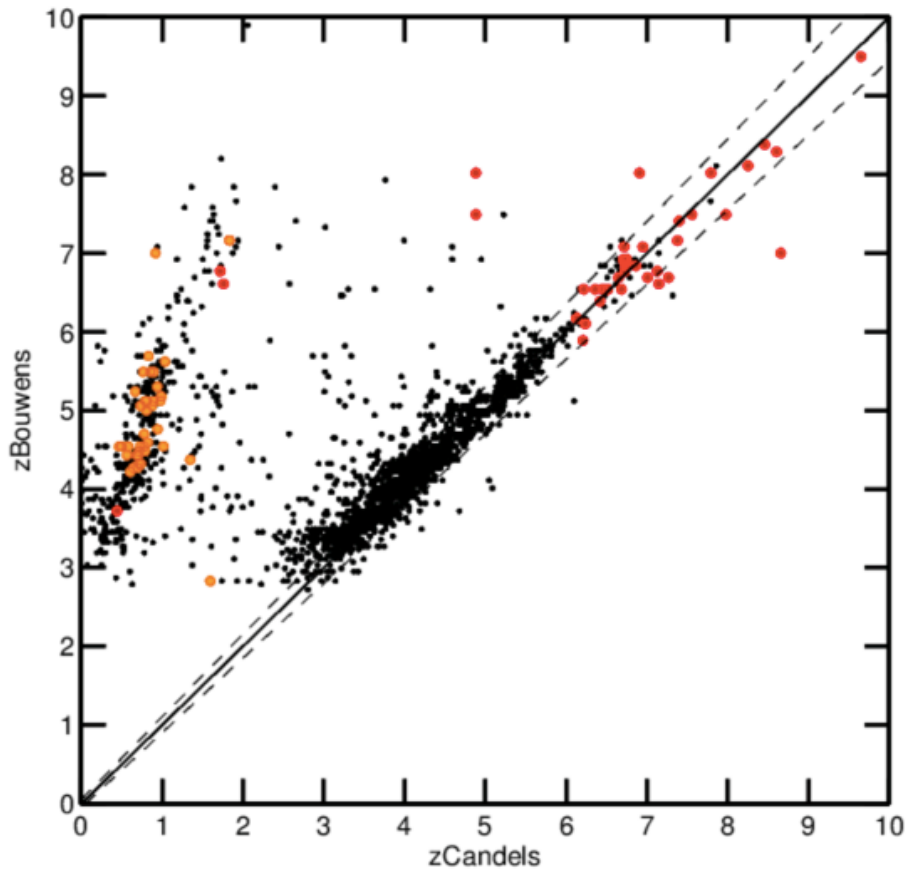




# CANDELS vs. 3D-HST



# CANDELS vs. High-z Bouwens



# Emission line fluxes G102/G141

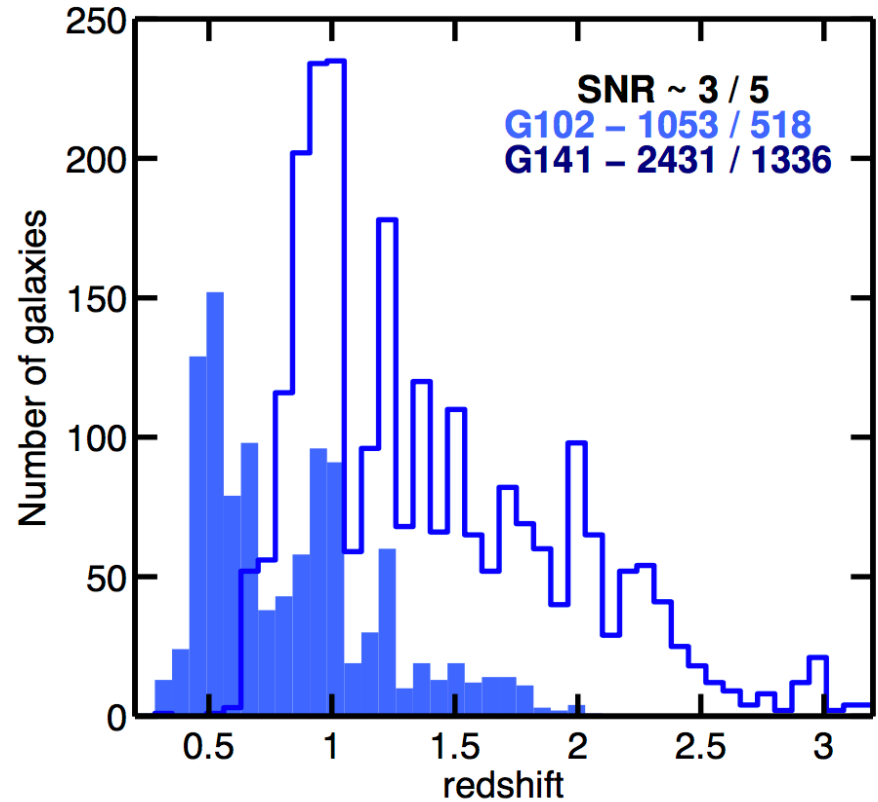
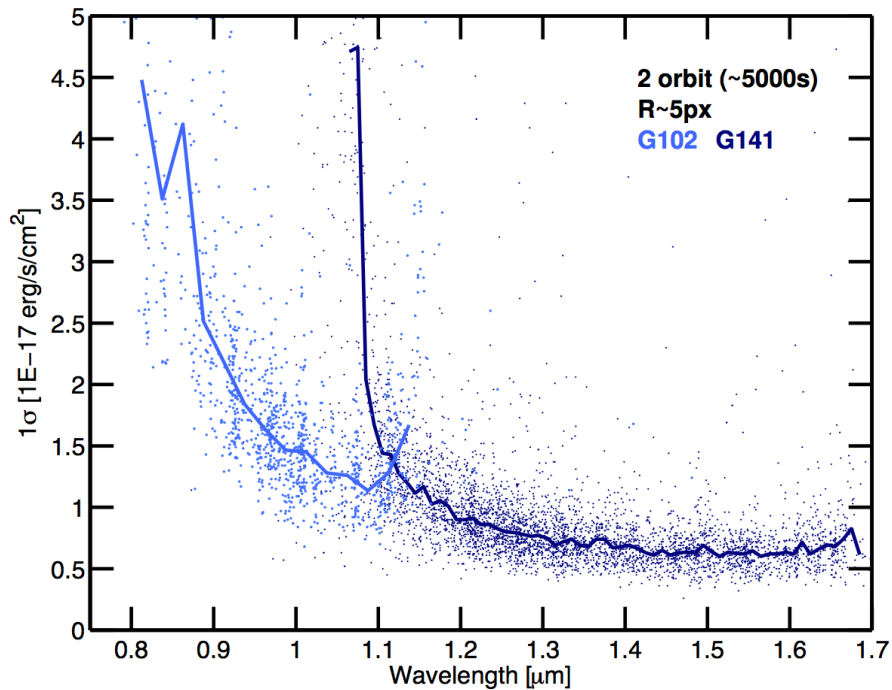
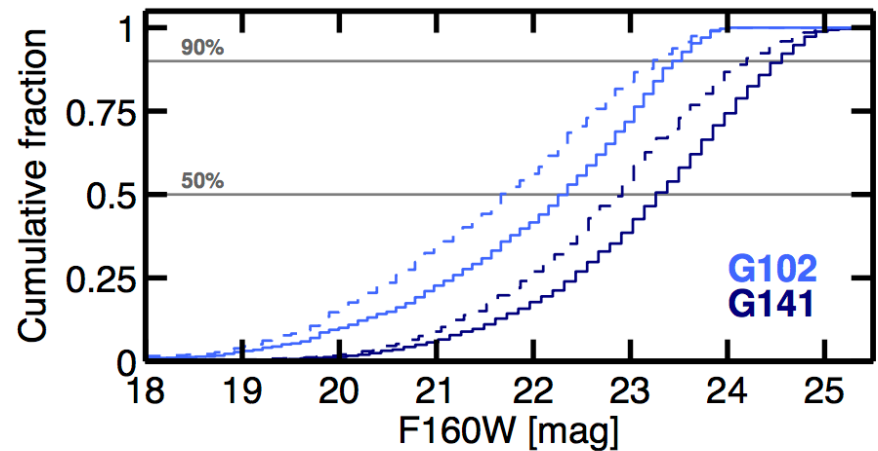
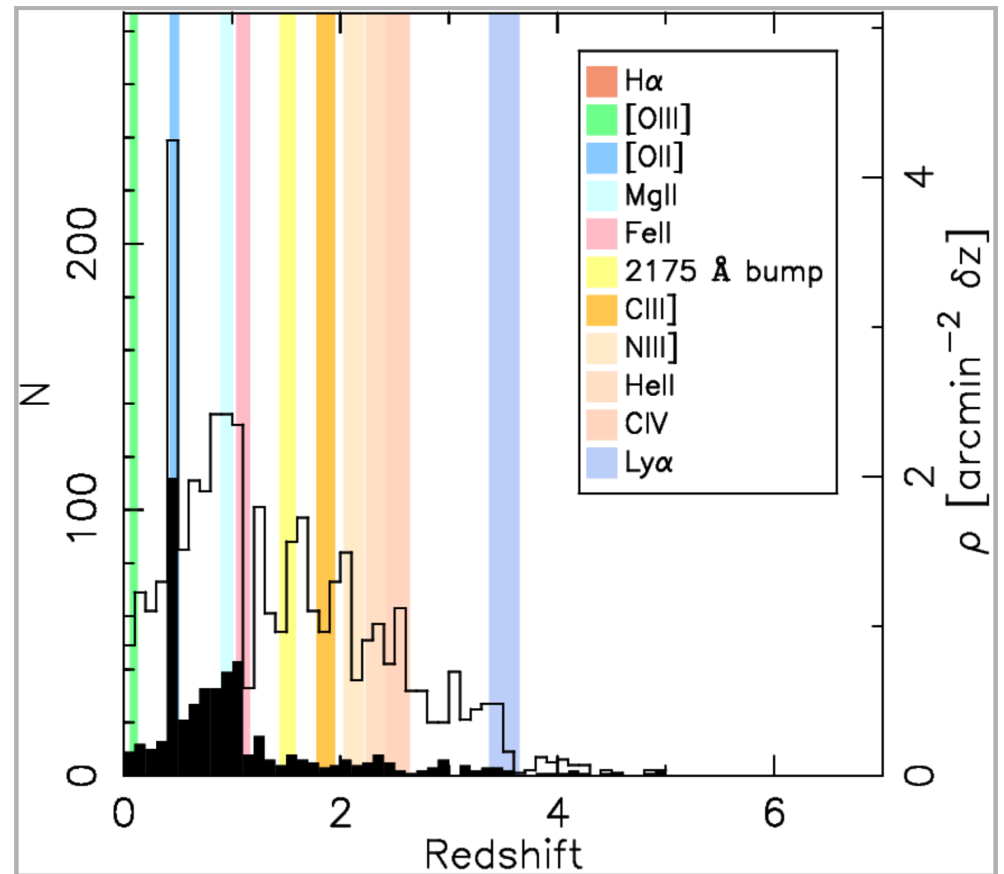
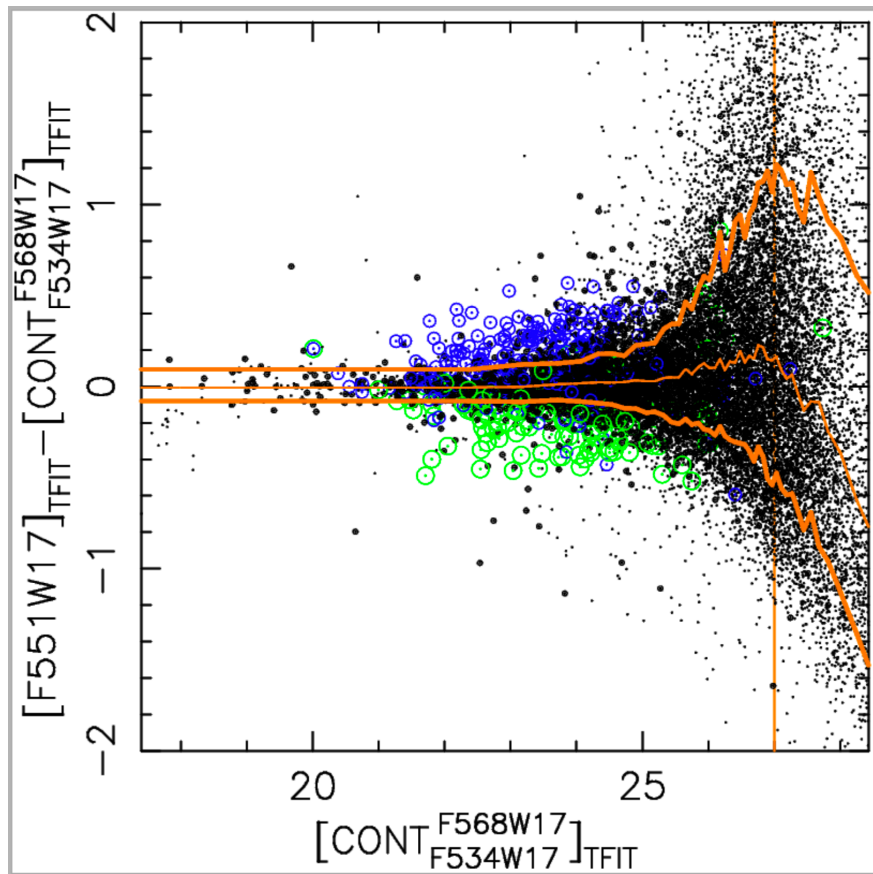


Table 4  
Emission Lines

Line	Catalog ID	Rest wavelength [ $\text{\AA}$ ]	Ratio
Ly $\alpha$	Lya	1215.400	...
C IV	CIV	1549.480	...
Mg II	MgII	2799.117	...
Ne V	NeV	3346.800	...
Ne VI	NeVI	3426.850	...
[O II]	OII	3729.875	...
[Ne III]	NeIII	3869.000	...
He I	HeIb	3889.500	...
H $\delta$	Hd	4102.892	...
H $\gamma$	Hg	4341.680	...
[O III]	OIIIx	4364.436	...
He II	HeII	4687.500	...
H $\beta$	Hb	4862.680	...
[O III]	OIII	5008.240, 4960.295	2.98:1
He I	HeI	5877.200	...
[O I]	OI	6302.046	...
H $\alpha$	Ha	6564.610	...
[S II]	SII	6718.290, 6732.670	1:1
S III	SIII	9068.600, 9530.600	1:2.44

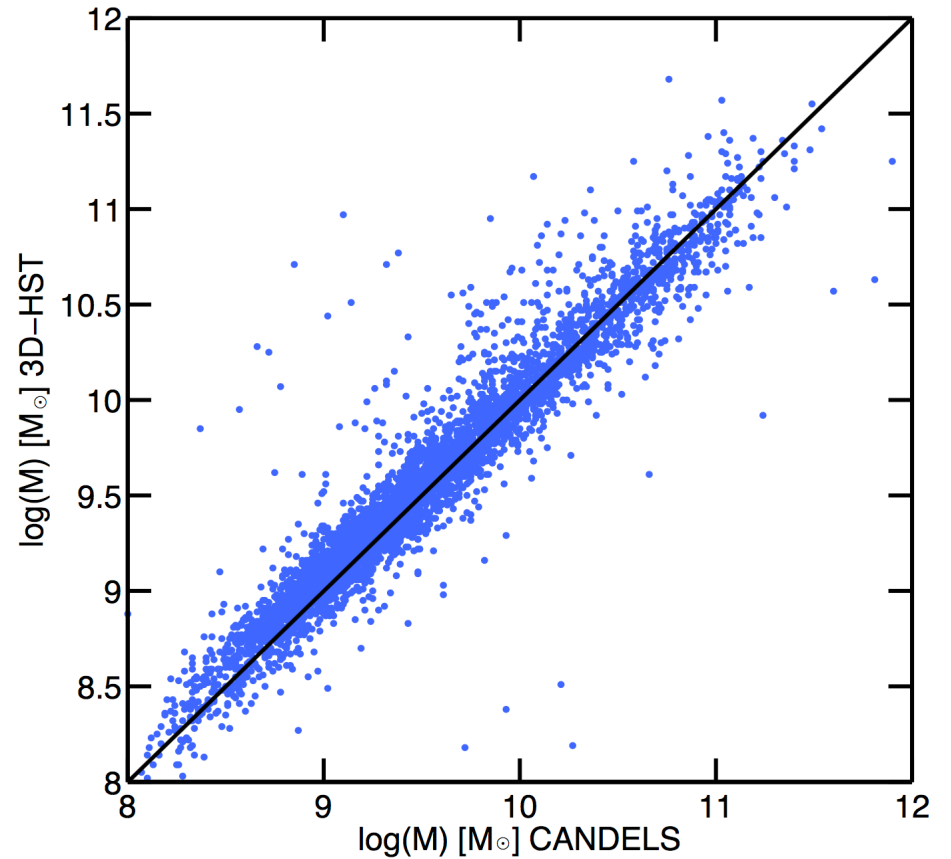
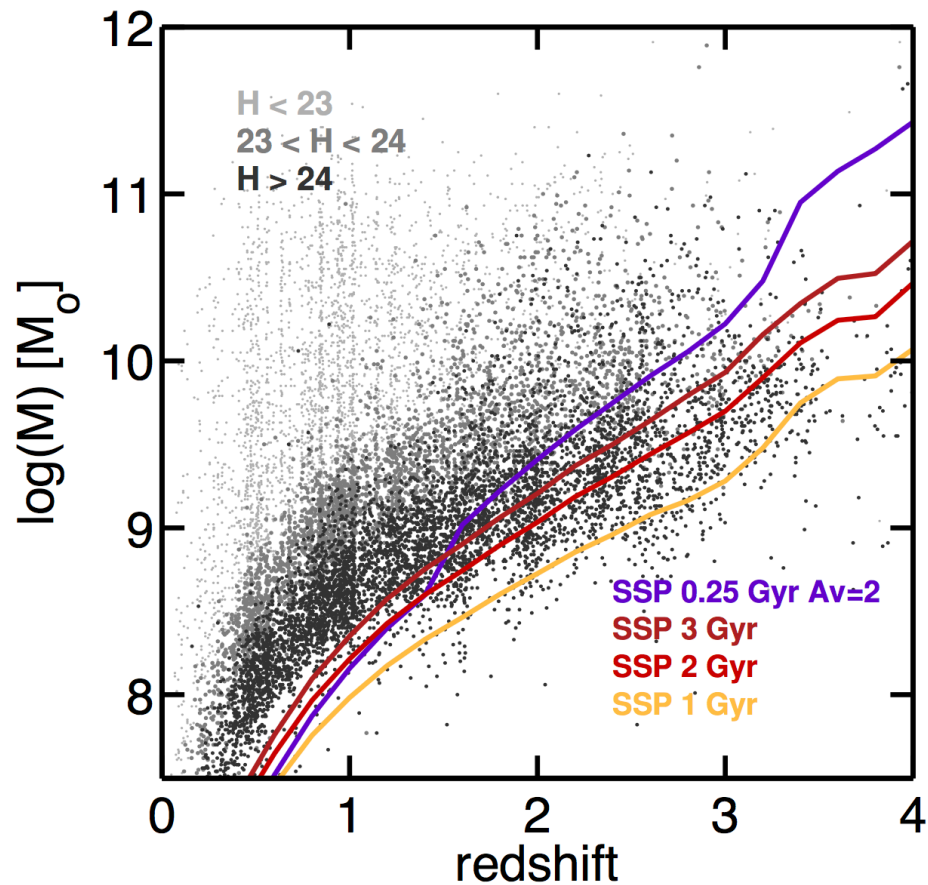


# Emission line fluxes SHARDS



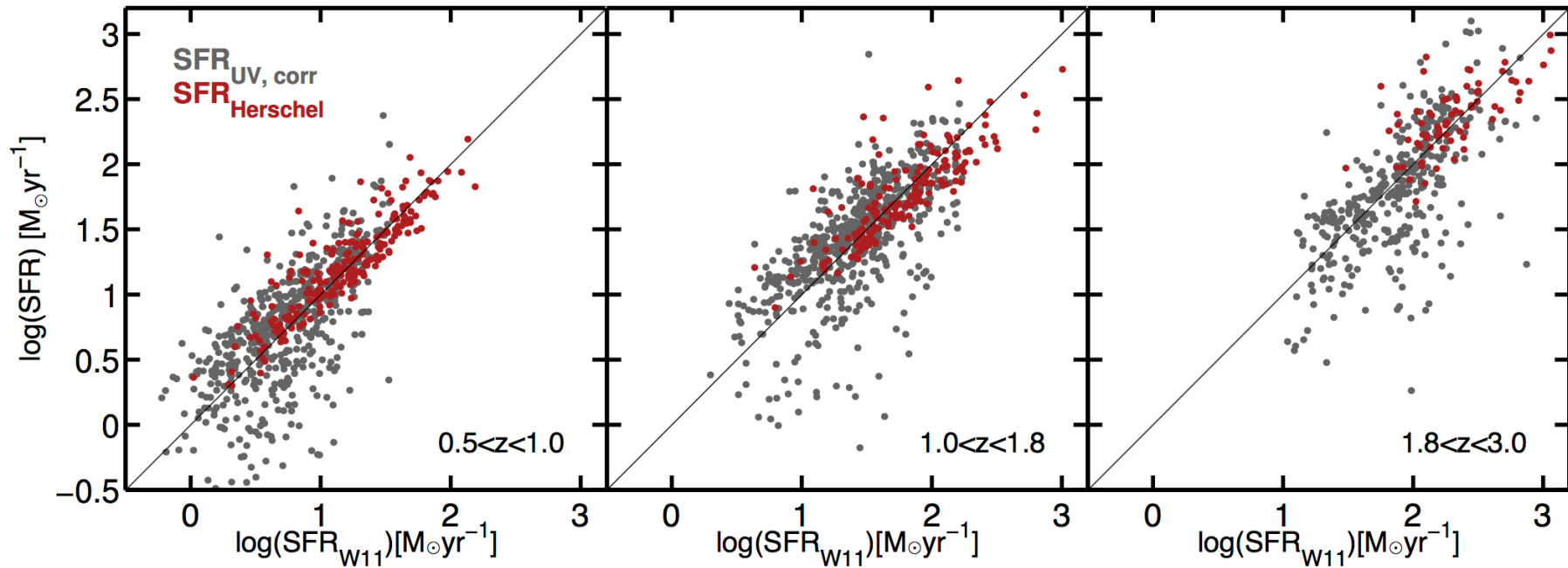
See Cava et al. (2015) also Hernan-Caballero in prep. (SHARDS-HFF)

# Stellar masses



No "team" stellar masses for the final version of the redshifts.

# UV+IR SFRs



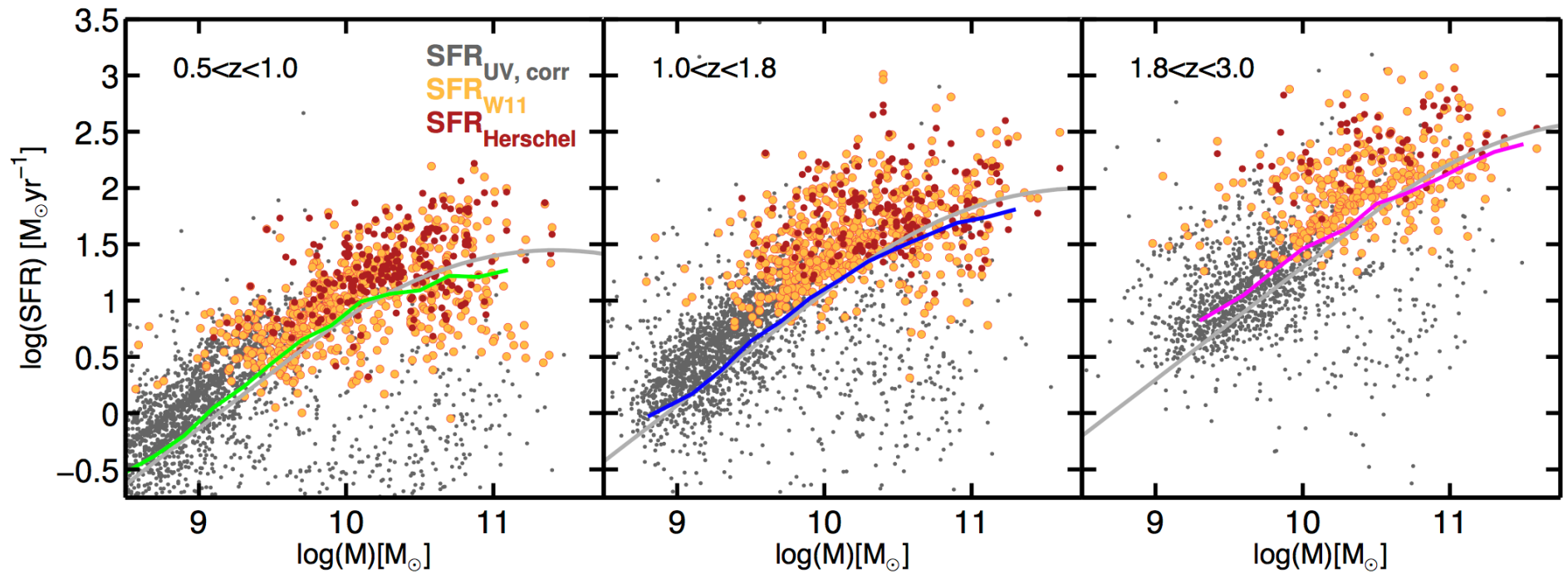
### **3 Tier SFR indicators:**

- UV + IR from Spitzer+Herschel
- UV + IR from Spitzer MIPS
- SEDfit corrected from extinction

### **Data Release:**

- IR fluxes
- SFRs
- Contamination flags

# UV+IR SFRs



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