

SHARDS: ELGs at interm-z

On behalf of Antonio Cava

Greatest result from SHARDS

Ricciardelli & Cava (2015)



Madrid, May 13-14, 2015



SHARDS view on emission-line galaxies

WHAT CAN SHARDS ADD?

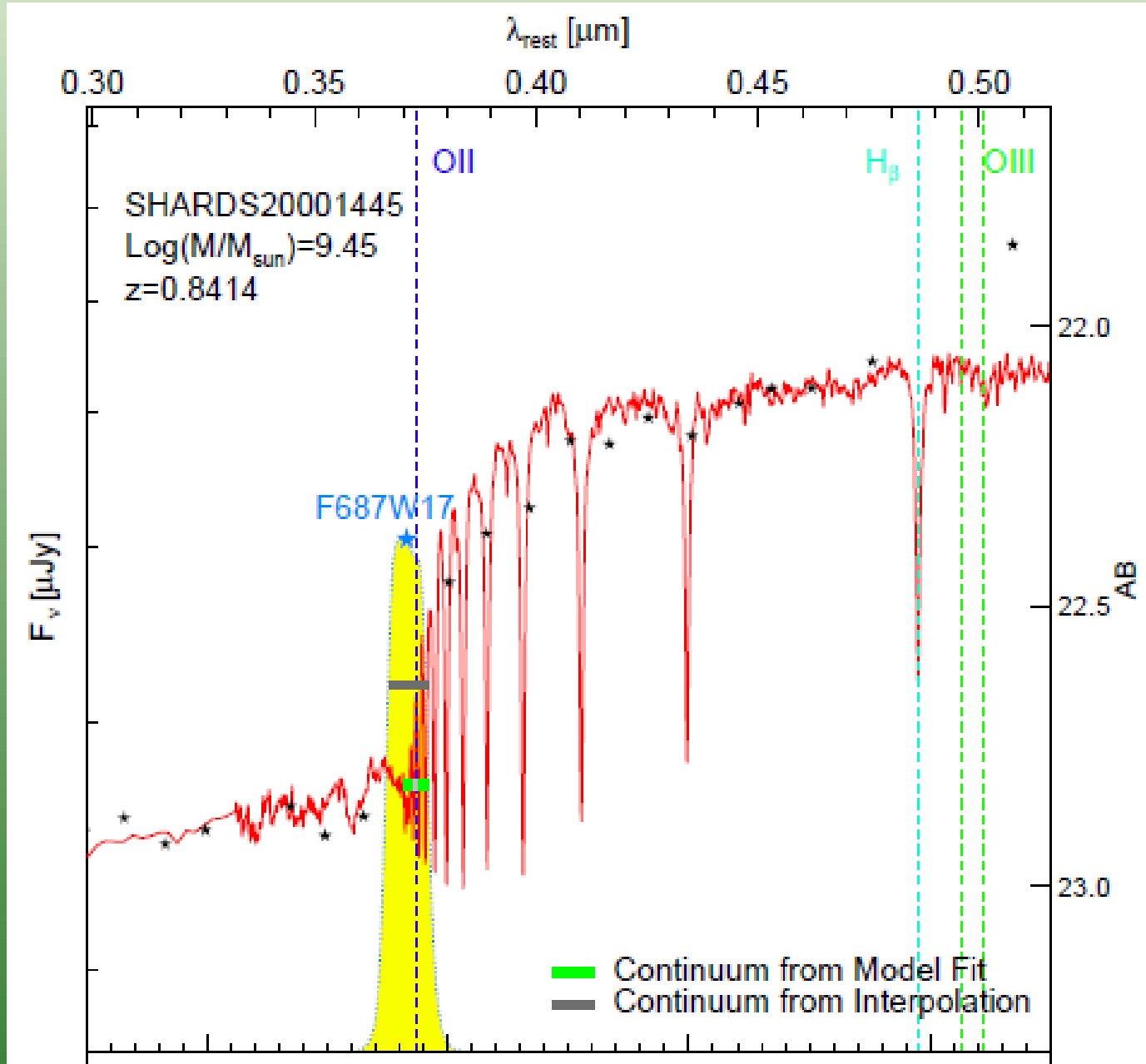
- ➔ Emission-line measurements ($H\alpha$, [OIII], [OII], $Ly\alpha$) with similar flux limit to spectroscopy, but with **no target selection effects** (i.e., sample completeness is high) down to 27 mag.
- ➔ Continuous coverage of $500 < \lambda < 950$ nm window allows to **probe all redshifts**, not just a few windows (cf. to narrow-band).

GOALS OF THIS PAPER

- ➔ Evaluate performance of SHARDS in **detecting ELGs**.
- ➔ Build a **complete census** of star-forming galaxies at $z \sim 0.8$ and $z \sim 1.2$, and perform a comprehensive analysis of their physical properties.
- ➔ Probe the star formation properties at the **faint-end of the mass function**.
- ➔ Compare SFR indicators.
- ➔ Characterize the dust attenuation law in a complete sample of star-forming galaxies at interm-z.



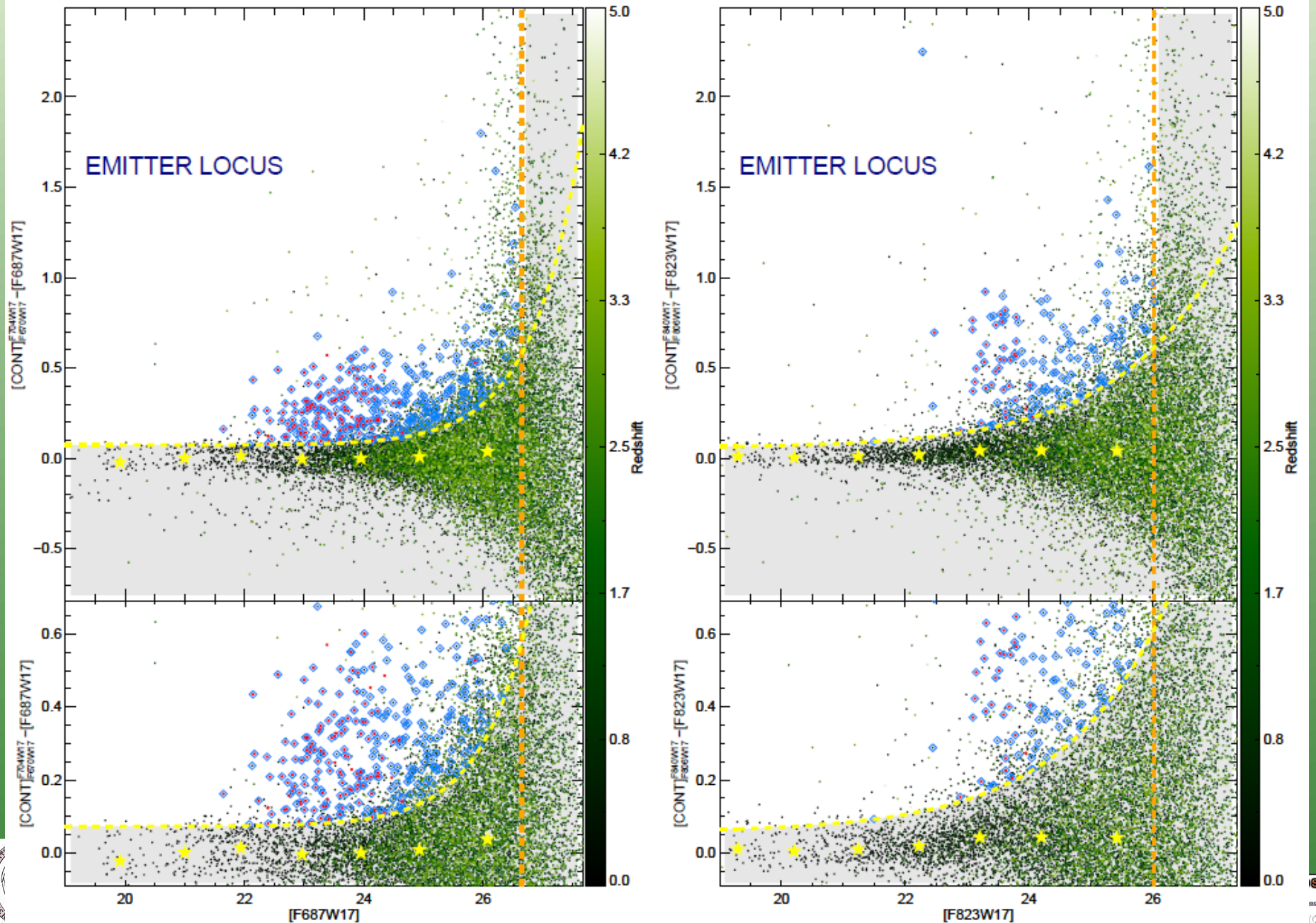
SHARDS: basics about ELG detection



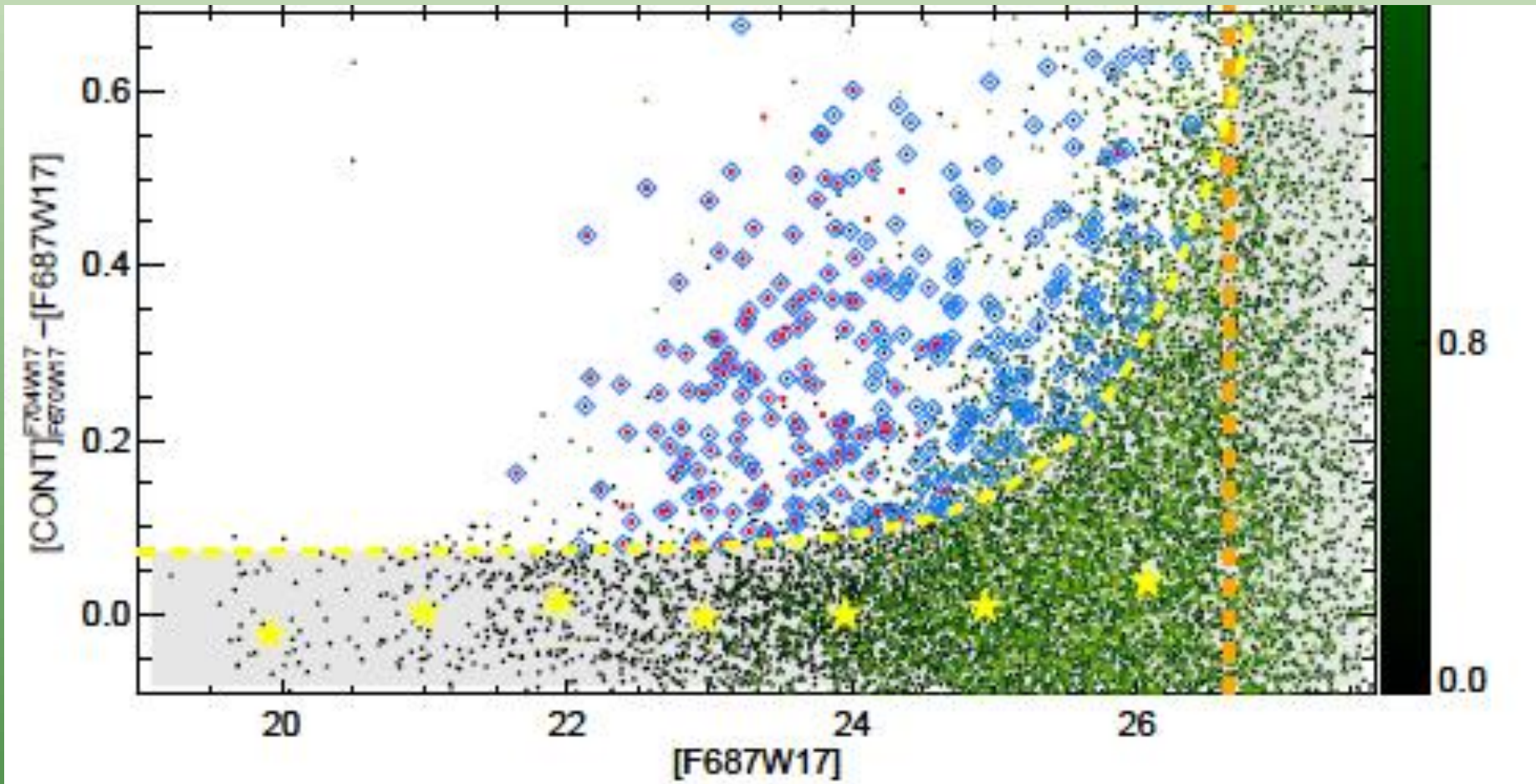
Madrid, May 20 14, 2010



SHARDS: statistical ELG detection



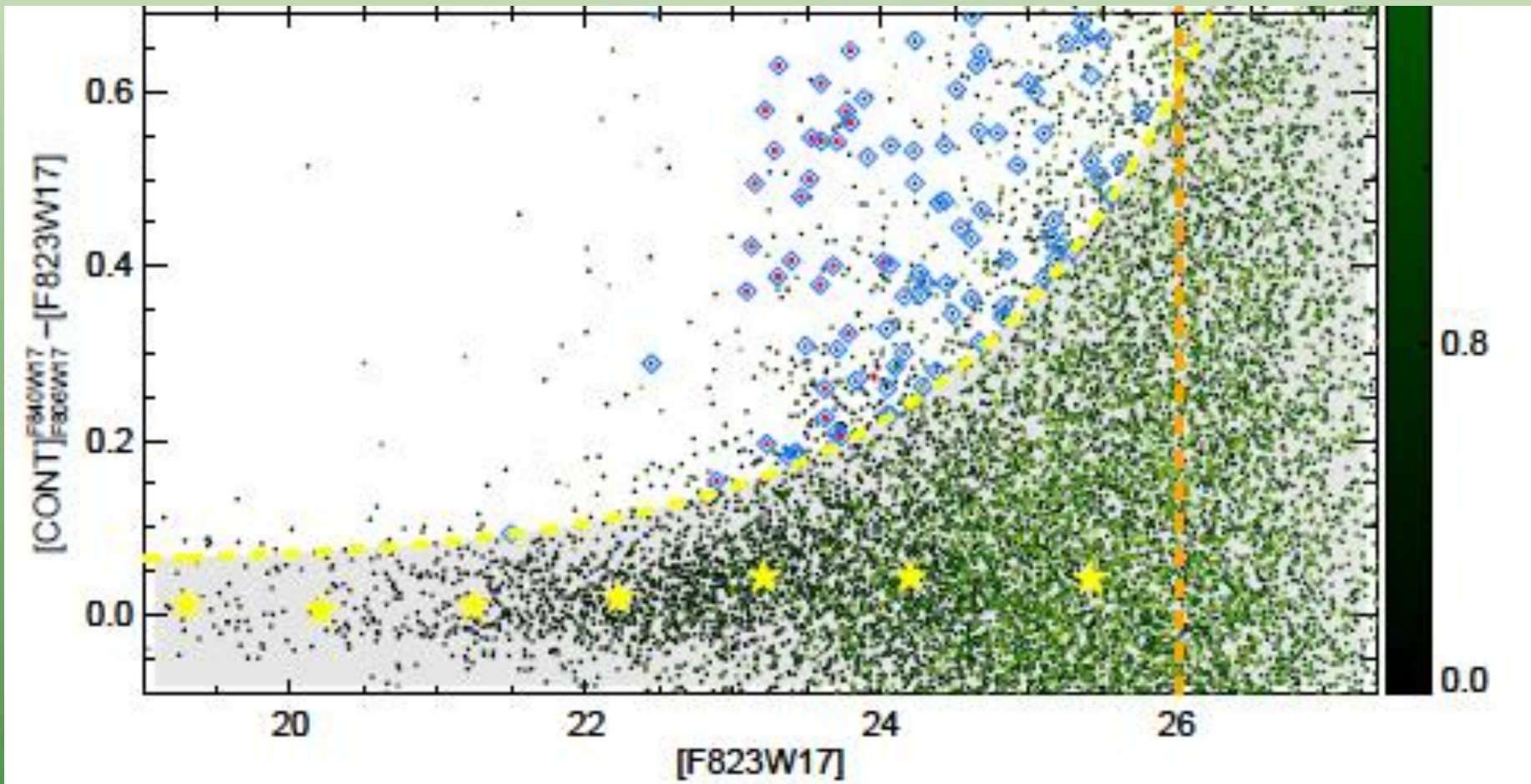
SHARDS: statistical ELG detection



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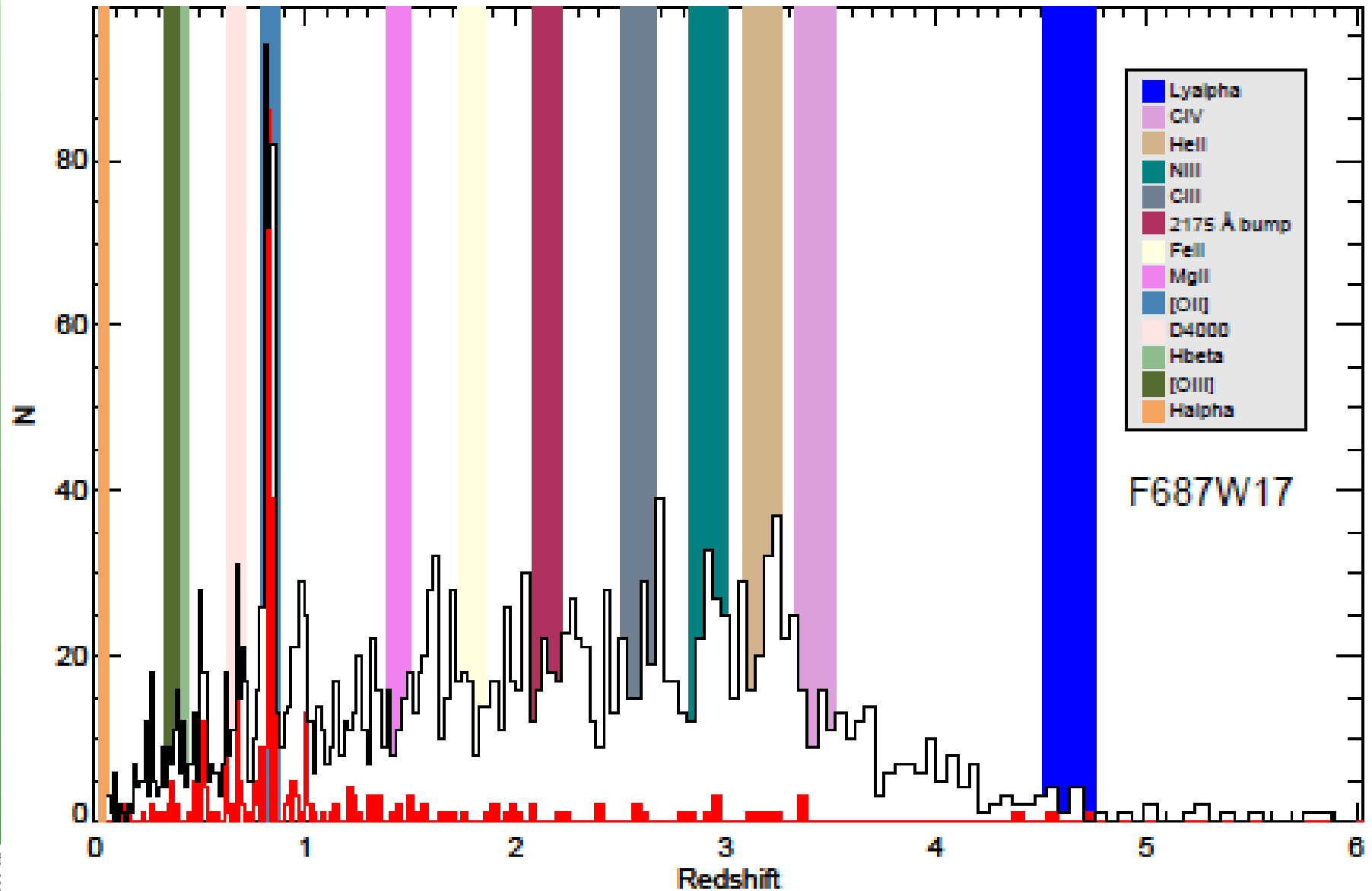
SHARDS: statistical ELG detection



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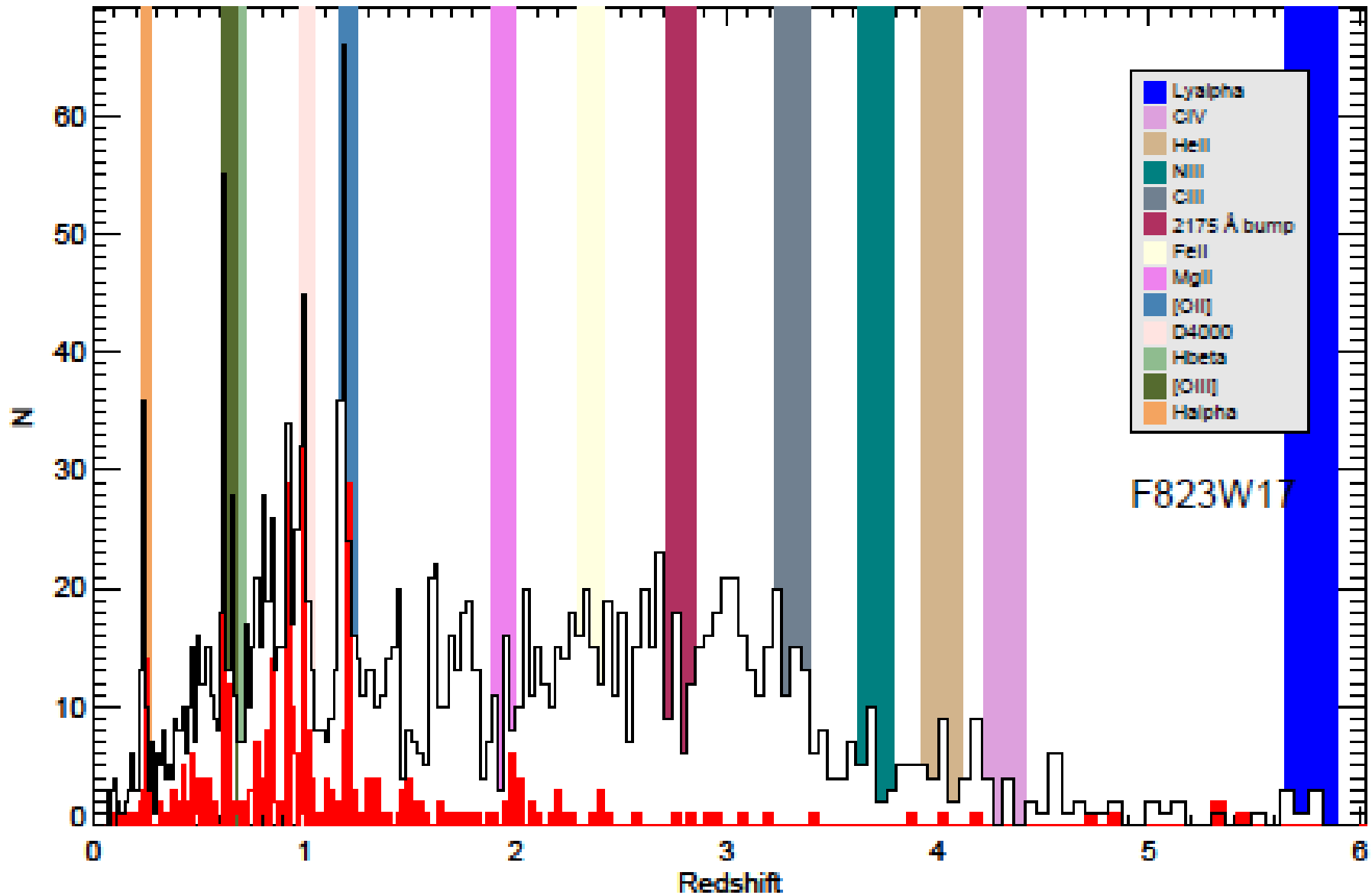


SHARDS: characterizing ELG candidates



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SHARDS: characterizing ELG candidates



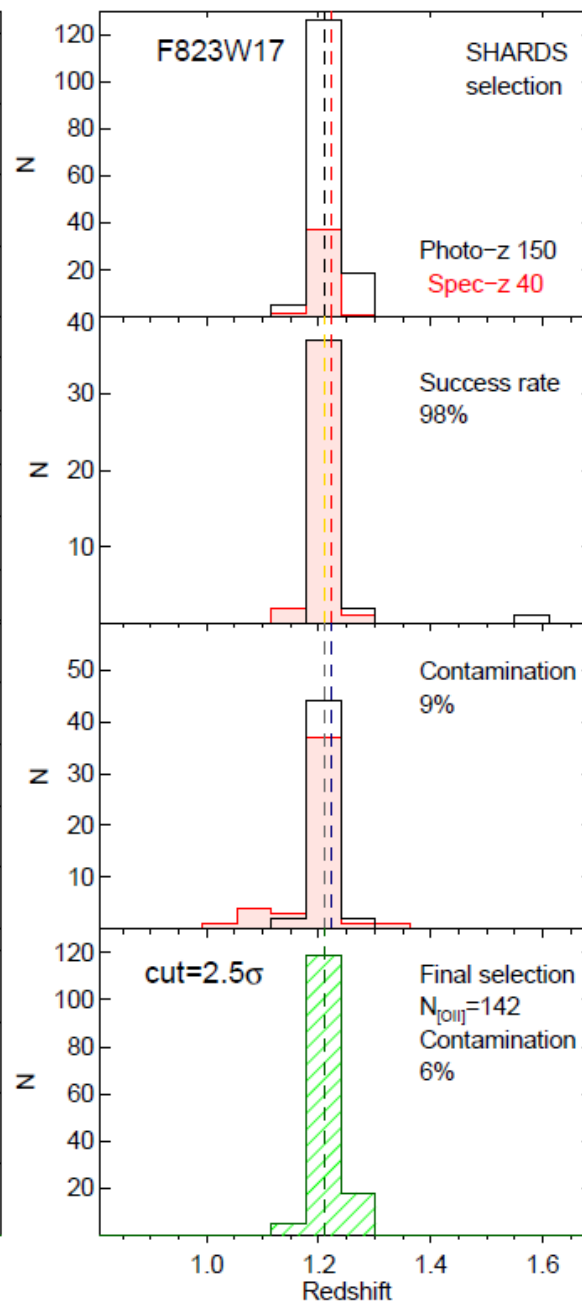
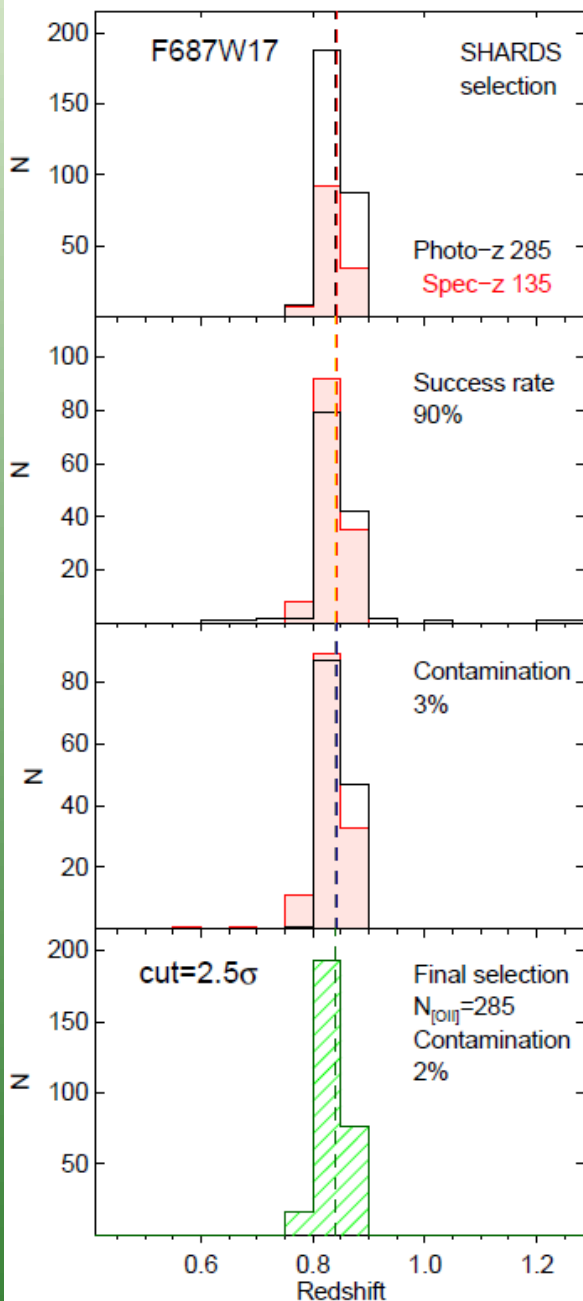
SHARDS: completeness and contamination

All
selected
galaxies

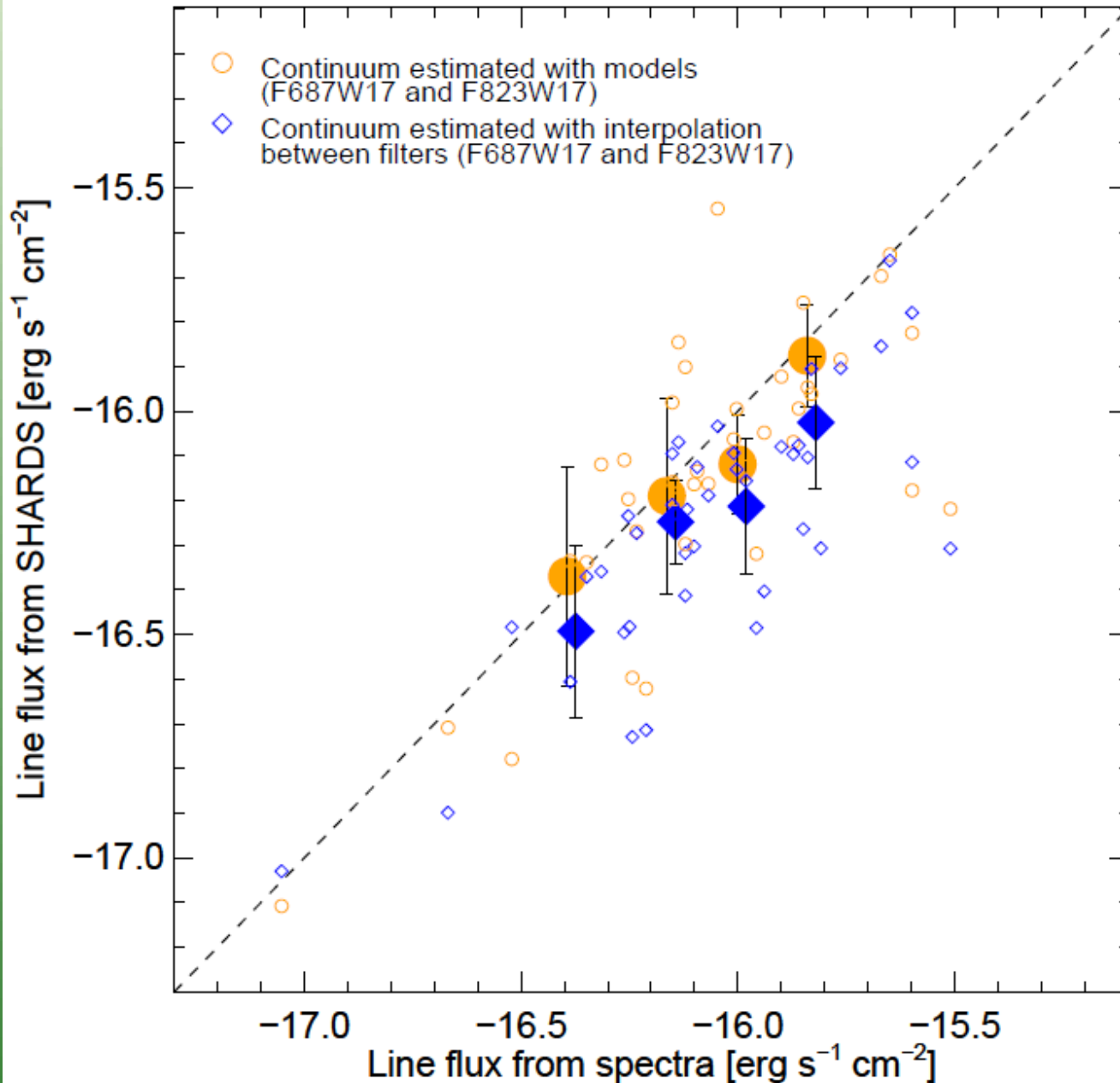
Fraction of
confirmed
emitters
recovered

Fraction of
confirmed
galaxies at
 $z \neq 0.84$

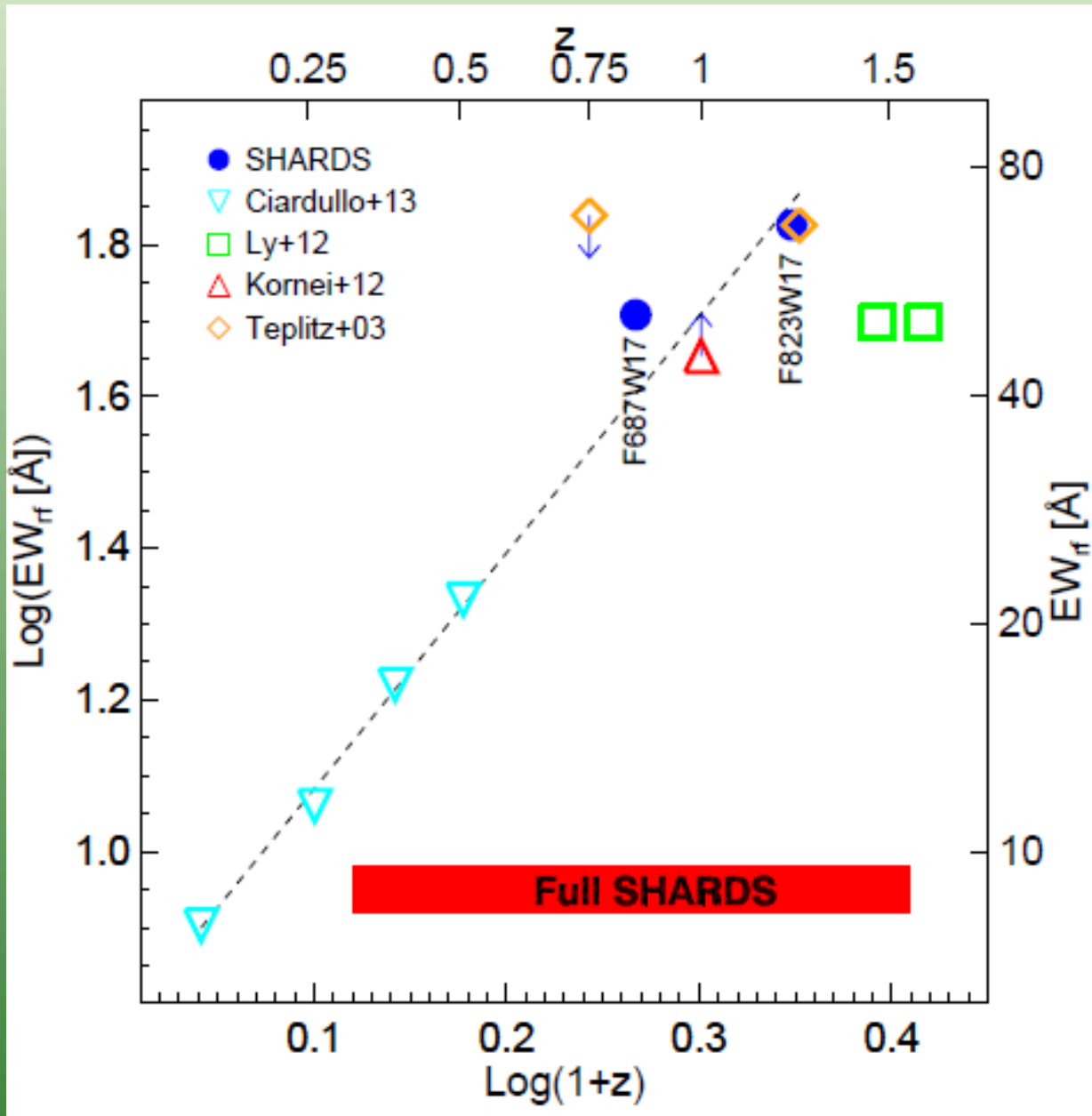
Final
sample



SHARDS: measuring emission-line fluxes



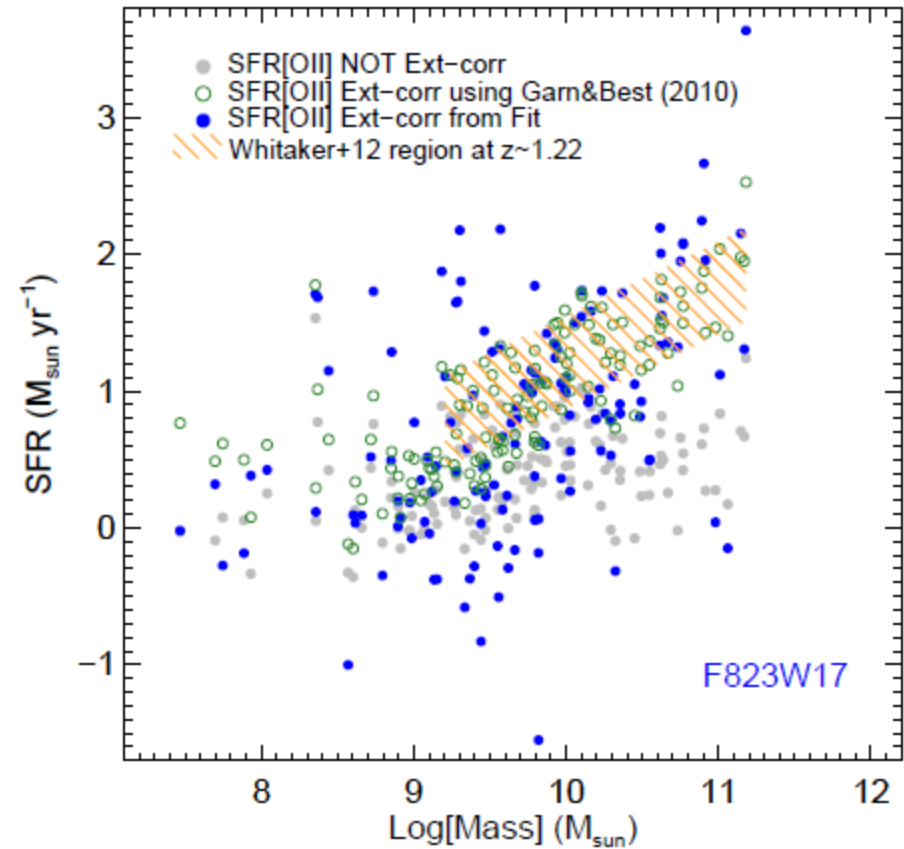
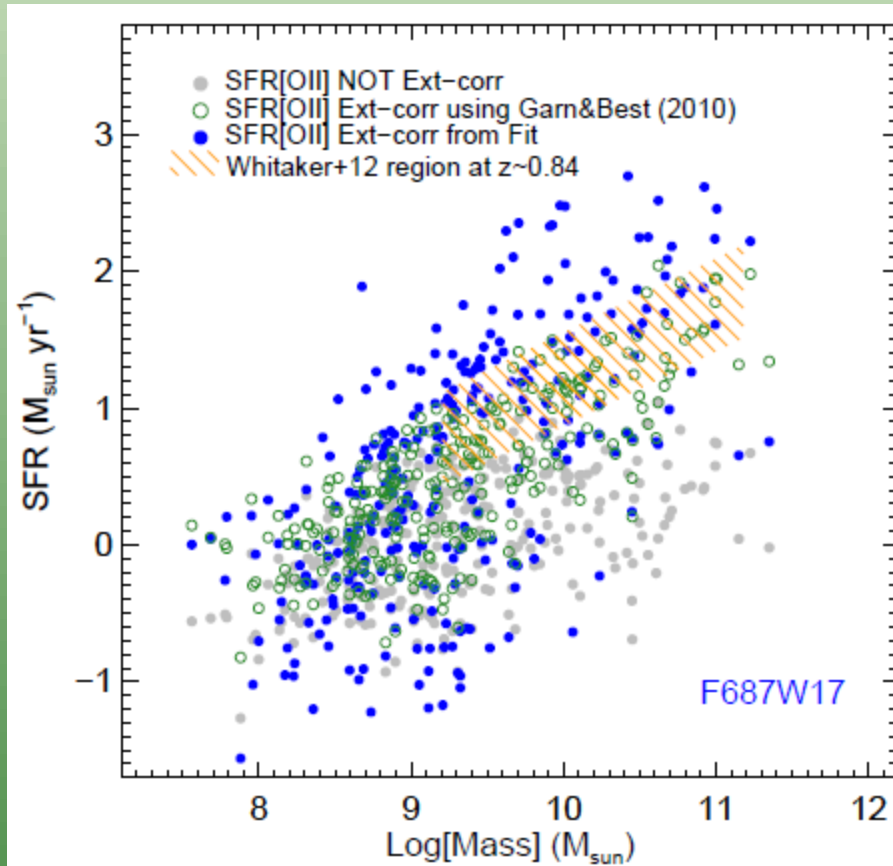
Evolution of the EW distribution



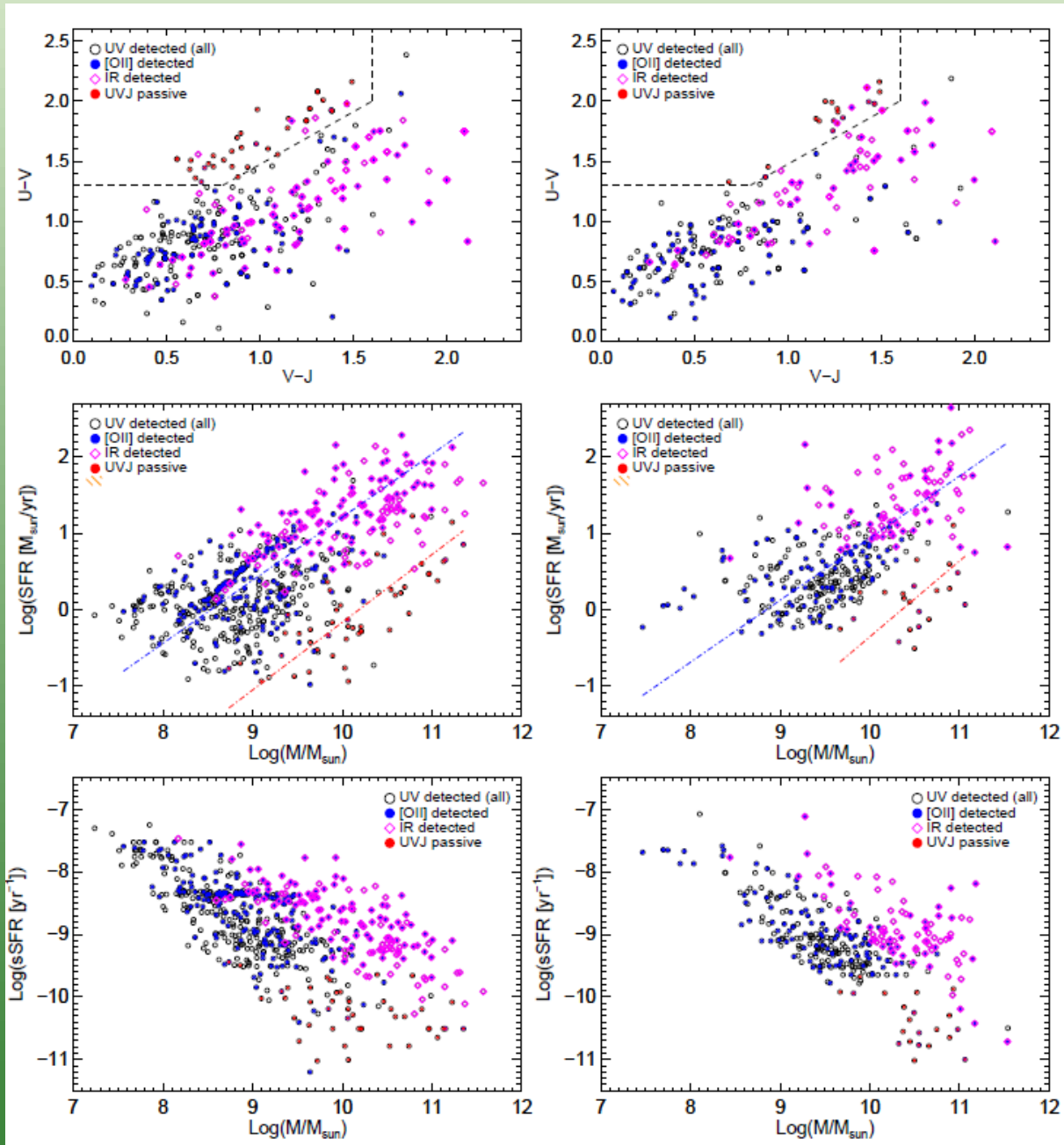
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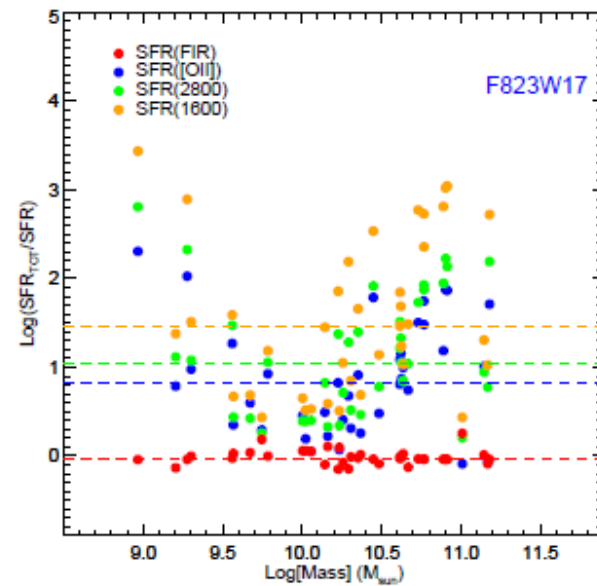
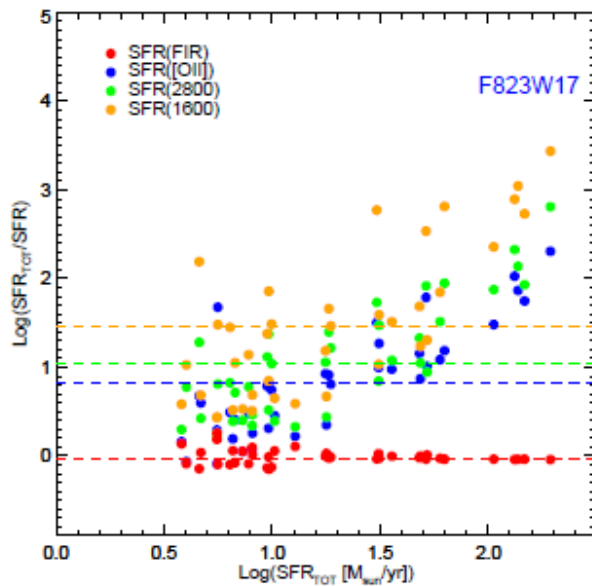
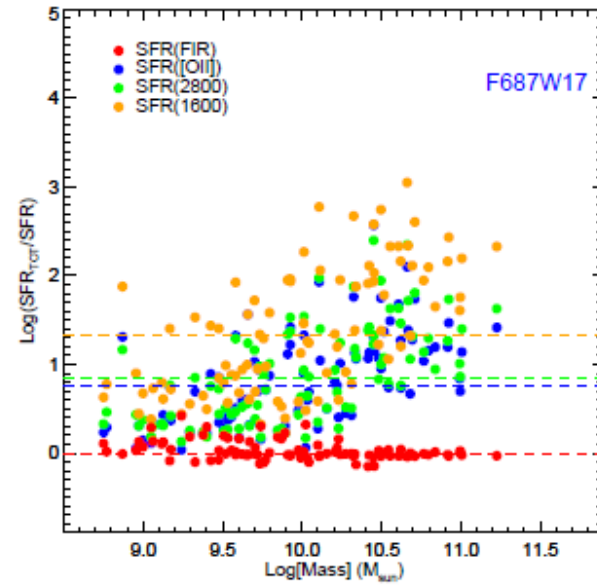
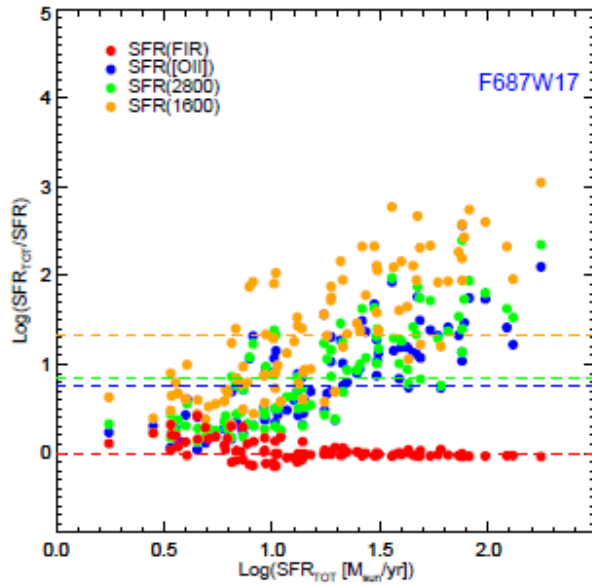
The Main Sequence using all SFGs



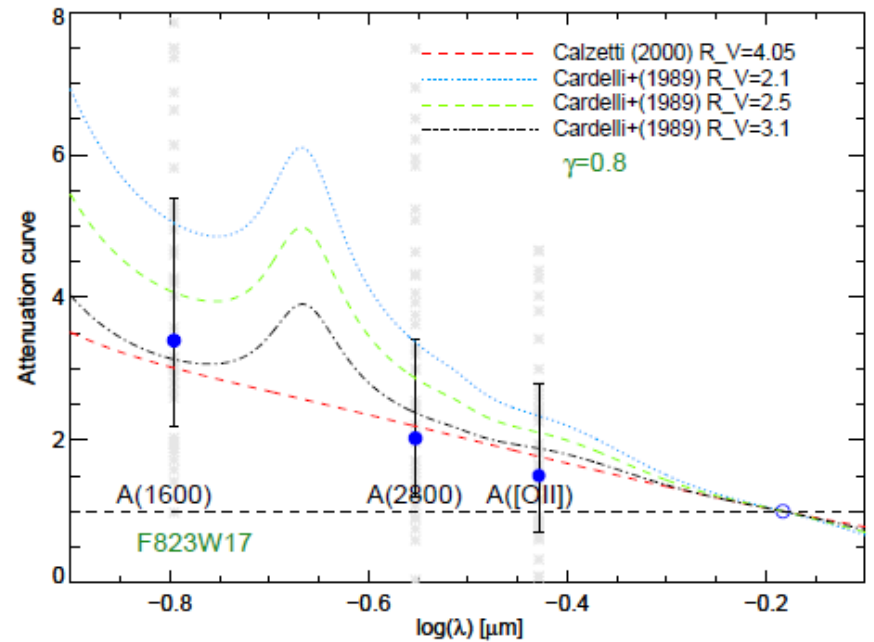
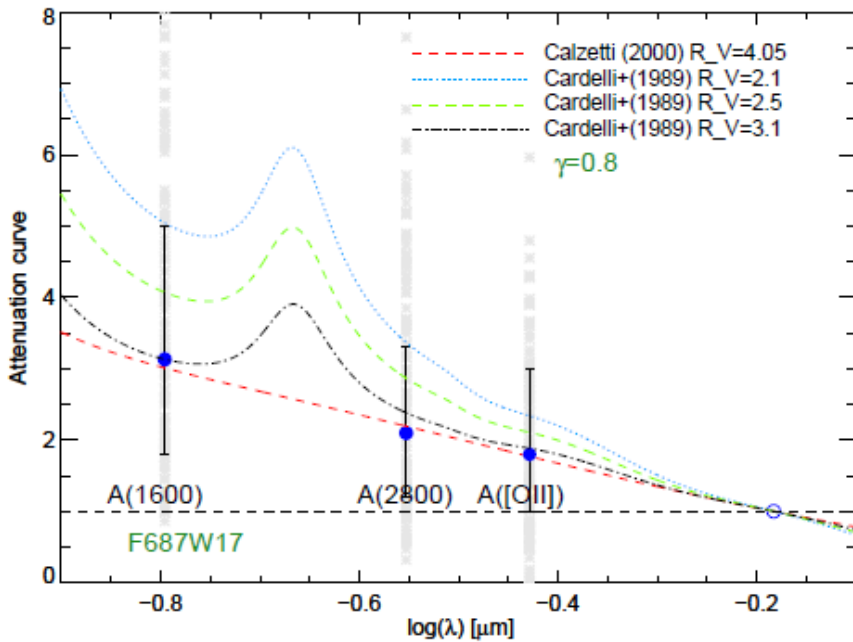
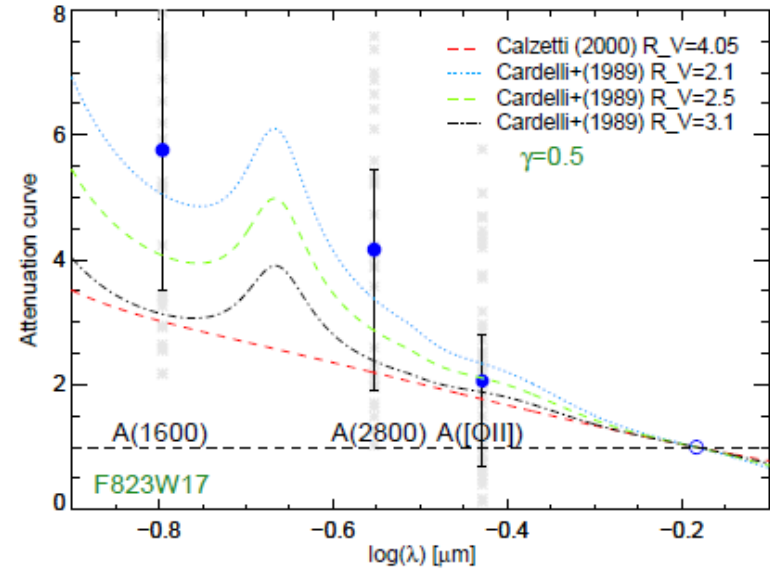
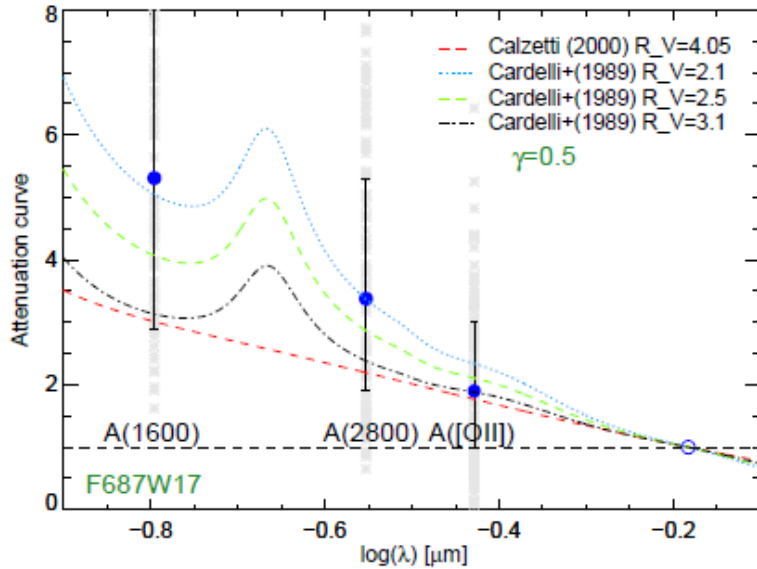
UVJ diagram with all SFGs



Comparison of SFR tracers



The attenuation law (for stars and gas)



SHARDS view on SFGs at $z\sim 0.84$ and $z\sim 1.23$



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