Definition and Characterization of Local Analogs to High-z Galaxies

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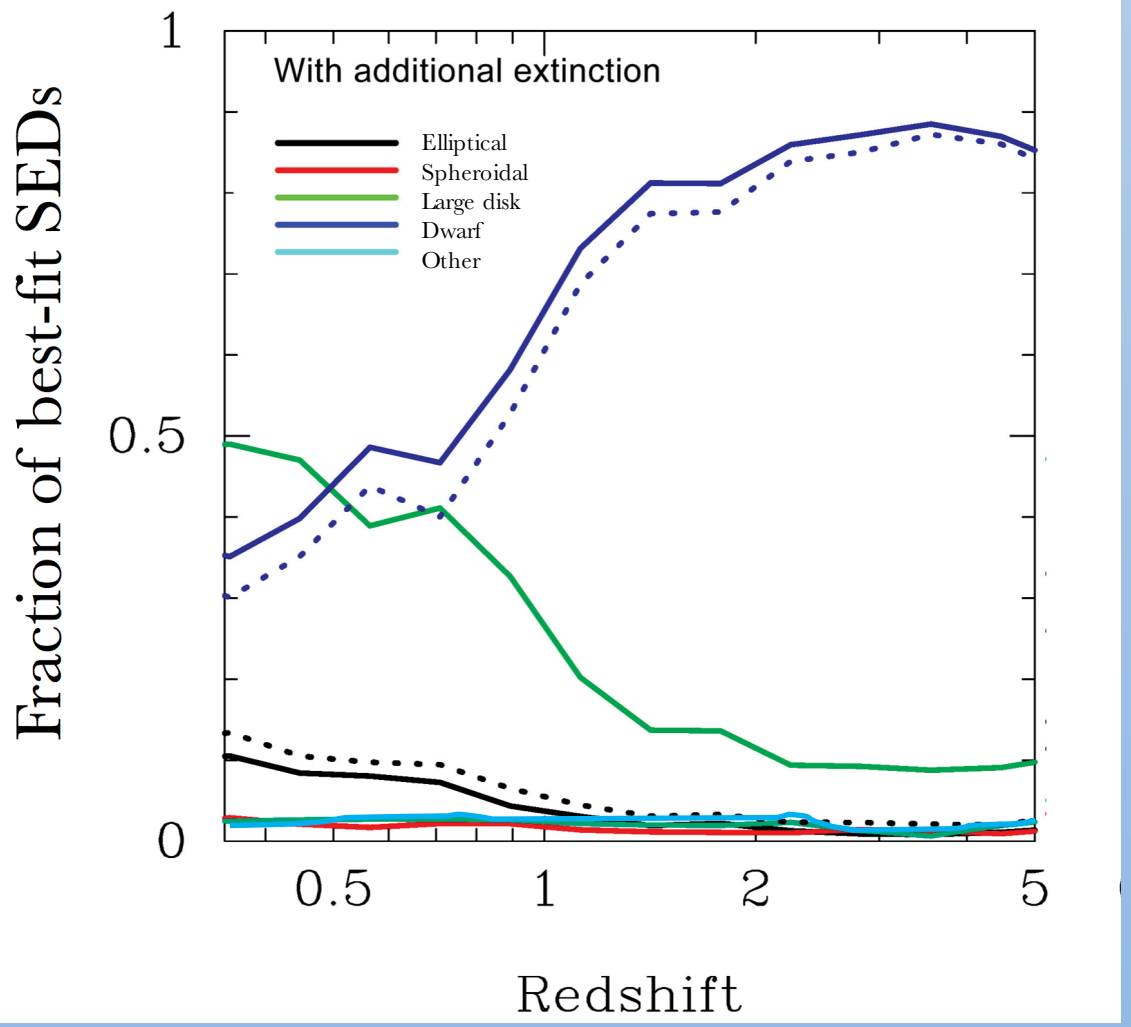
Local Analogs Sample Selection

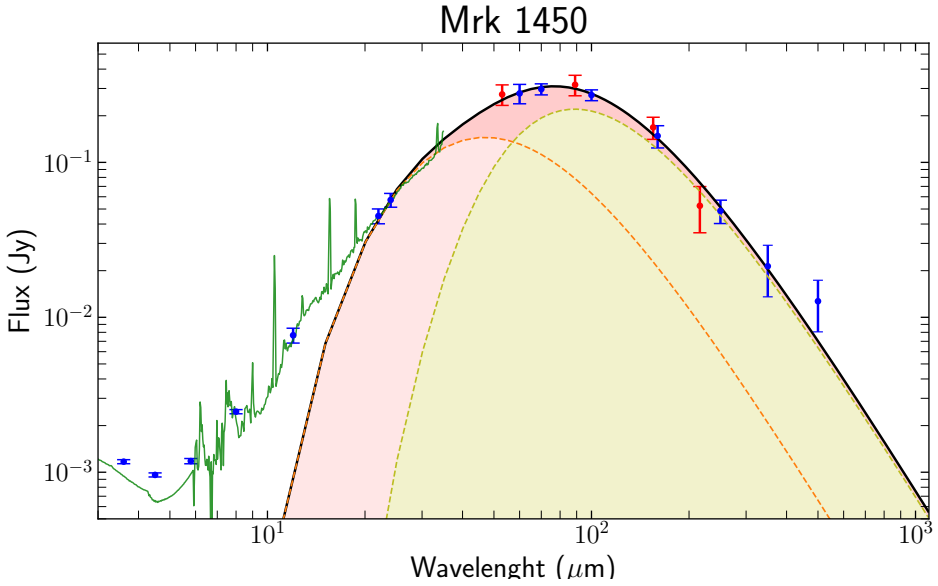
- Previous works: FUV luminosity, W(Hα), *i.e. Ostlin 2014, Hoopes 2007, Overzier 2014*.
- Novel Technique.
- 129 local galaxy templates (Brown+ 2014).
- Fitting observe SED of 159,645 high-z galaxies (z up to 5, CANDELS[1]).

- **For galaxies at z>2 just 11 of the local template galaxies provide >90% of all the best-fit SEDs.**
- **Unique sample.**

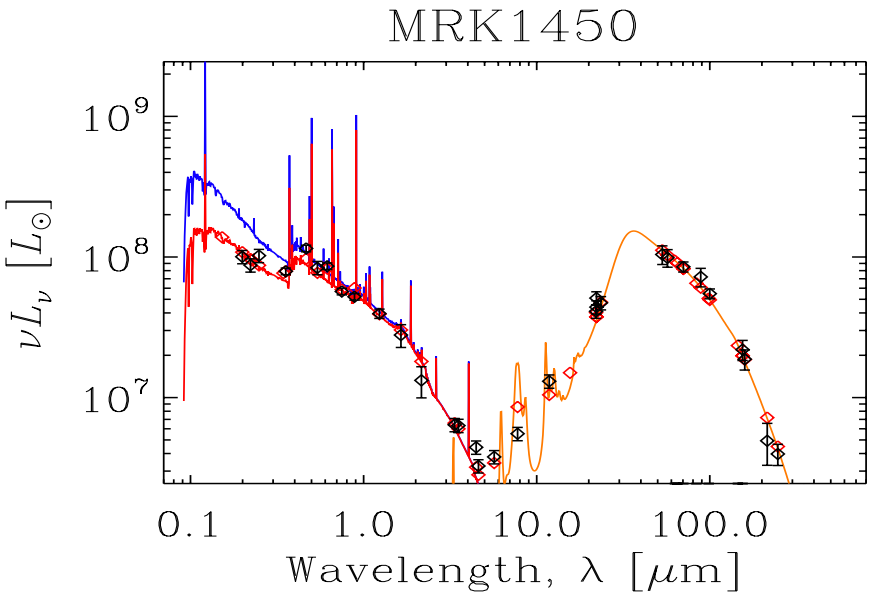


Refs: [1]Cosmic Assembly Near-infrared Deep Extragalactic Legacy Survey (CANDELS). For survey details, see Grogin et al. (2011) and Koekemoer et al. (2011).

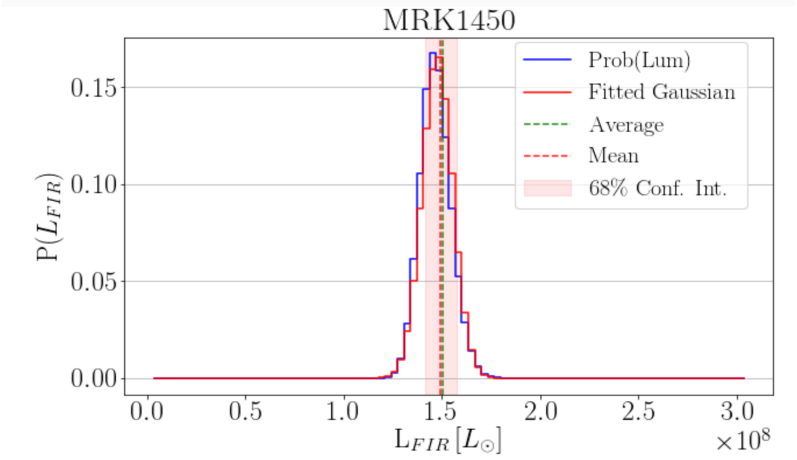
Dust continuum SED fits
Black-body models

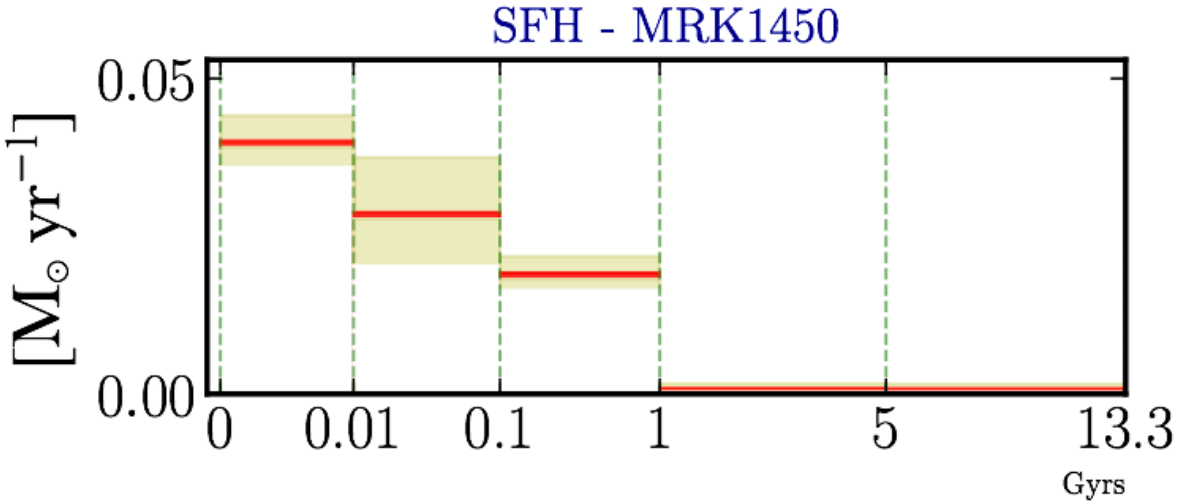


FUV – FIR SED
LIGHTNING fitting package.

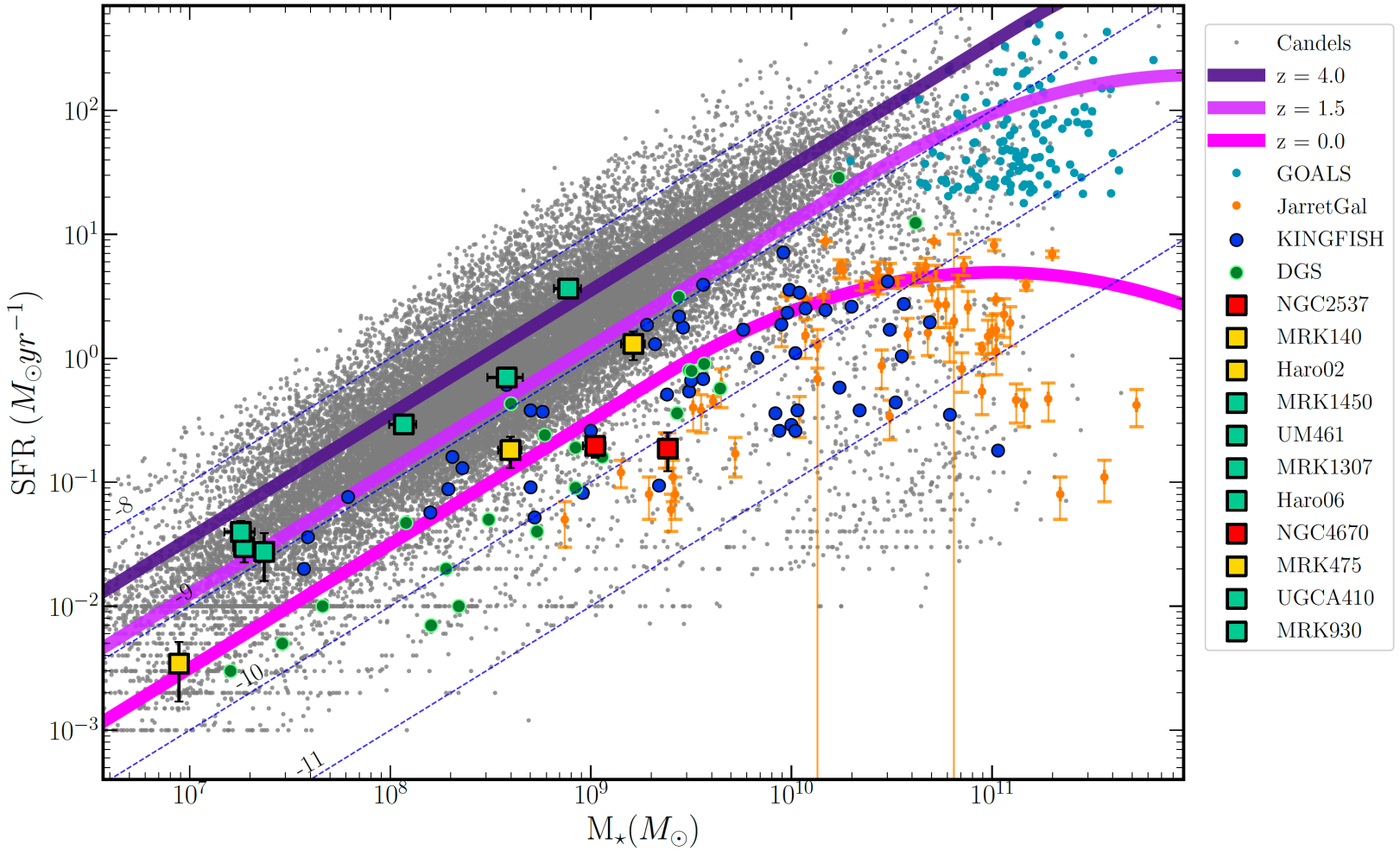


- FIR Luminosity





Results | Star Formation Rate vs Stellar Mass



- 9 Galaxies are
  - Starburst at z = 0.
  - Star Forming at z > 1.5 - 4
- NGC2537 and NGC4670.
- Motiño Flores et al. 2021.