

Sings/KINGFISH Galaxies Spectral Energy Distribution Fitting with CIGALE

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Fitting with CIGALE

Code Investigating GALaxy Emission

Combines multi-wavelength observations to fit SEDs and estimate galaxy properties

Sample: 33 nearby galaxies from KINGFISH ($d < 26\text{Mpc}$)

Combined 22 photometric observations (GALEX, SDSS, 2MASS, IRAC, WISE, MIPS, PACS and SPIRE) from 0.1 to 500 μm

Covers different type of galaxies + wide range of ISM properties:

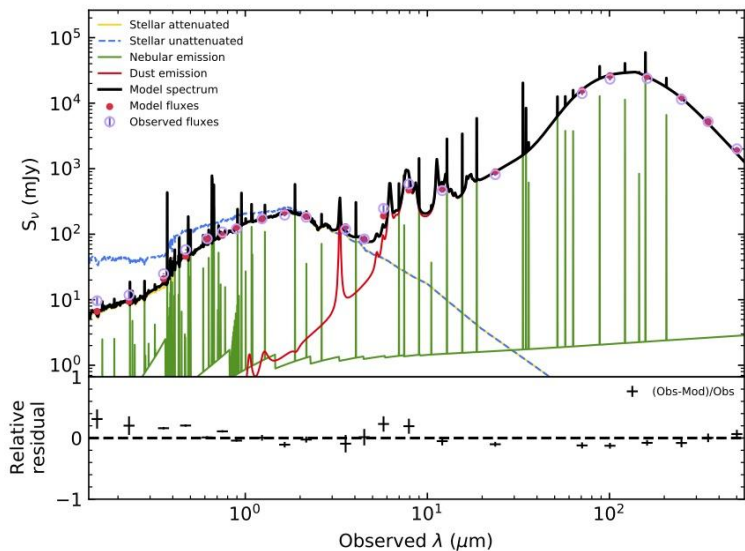
- $12+\log(\text{O}/\text{H})$: 8 - 9.38
- $\text{Log } U$: -4 - -2.5



Fitting Results:

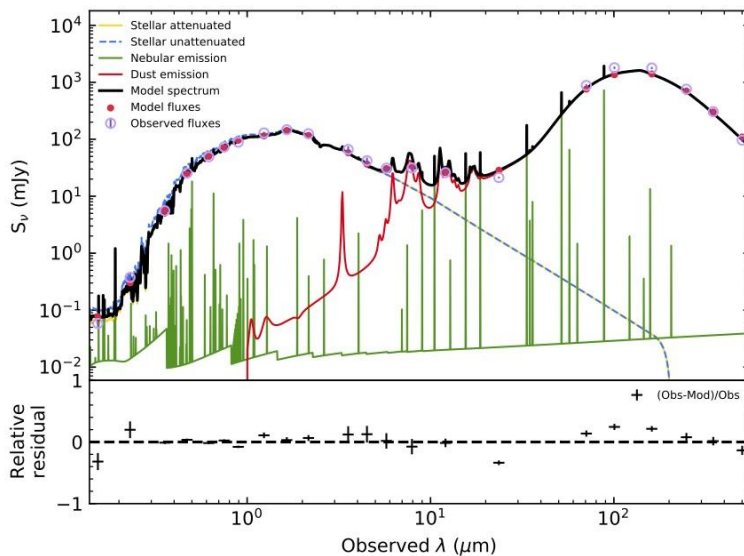
Best model for NGC_4631
($z=0.0$, reduced $\chi^2=1.0$)

High SF



Best model for NGC_5866
($z=0.0$, reduced $\chi^2=1.4$)

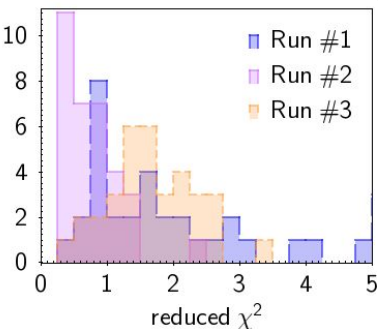
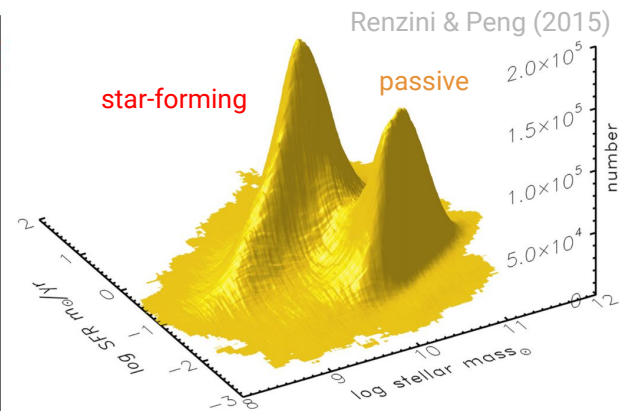
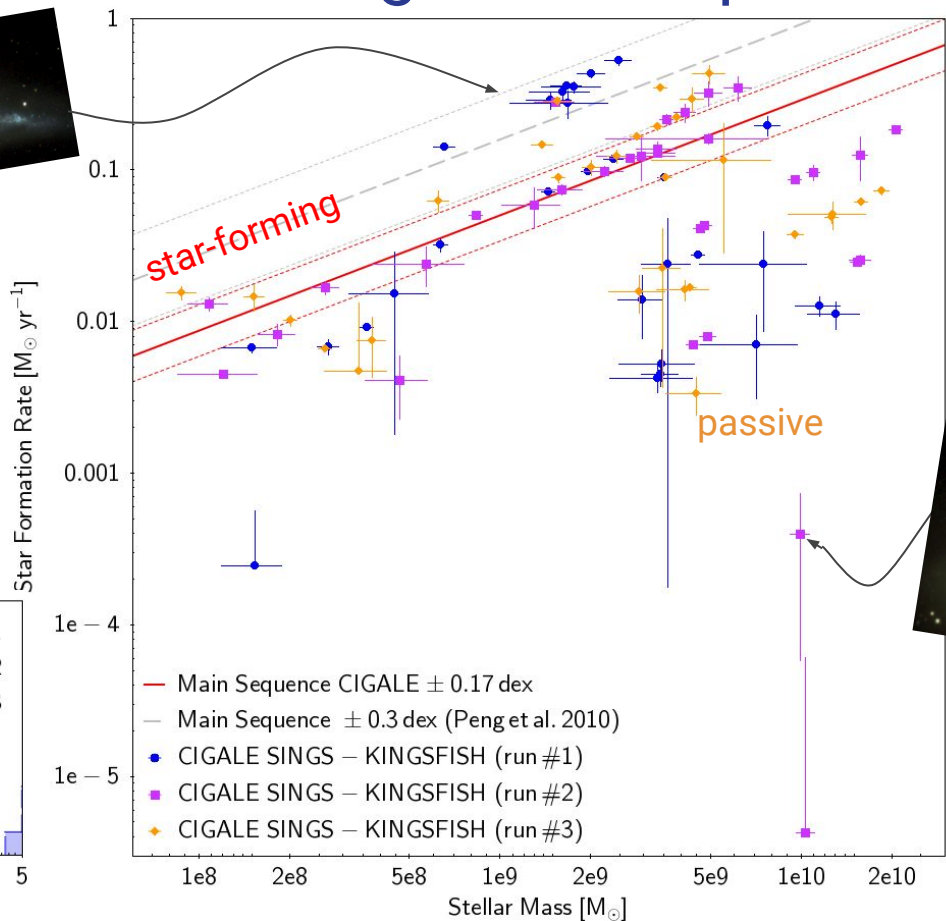
Low SF



Nebular Emission (e.g. H β , [OIII]): **weak, strong**
Stellar continuum : **redder, bluer**



Results: Star Forming Main Sequence



Results: BPT Diagram

