Hypergal

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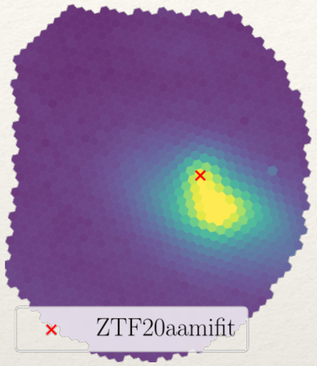
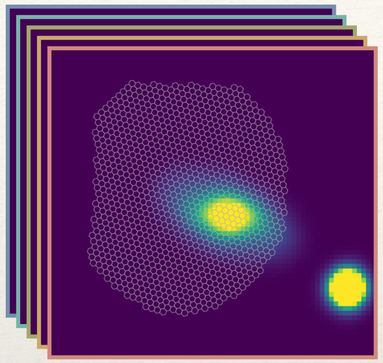
Hypergal | Concept

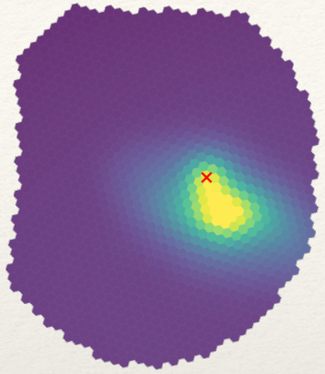
SEDm Data
pysedm

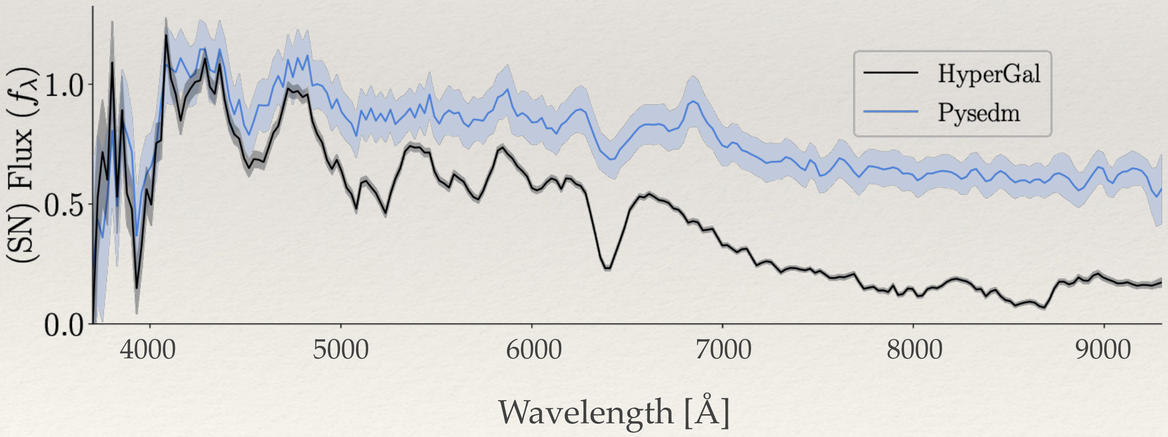


Photometry images
PanStarrs



Model
SED-fit + PSF





Lezmy et al. 2022

Hypergal 2.0

Same core | improved interface & installation
Dask now optional | Made easy for dask-free job (slurm)

`pip install hypergal`
(but see details for Cigale)

notebook

```
import hypergal
```

```
cubefile = 'e3d_crr_b_ifu20200217_11_39_59_ZTF20aamifit.fits' # fullpath
radec = (275.7067393, 47.8320214)
redshift = 0.045
```

```
hg_spec, _ = hypergal.run_hypergal(cubefile, radec=radec, redshift=redshift)
```

shell

```
% hg_run.sh {cubefile}
            --redshift {redshift}
            --radec {ra},{dec}
```

https://github.com/MickaelRigault/hypergal

Production

November 2024

2021-2023

8770 Target cubes

7039 have an astrometry

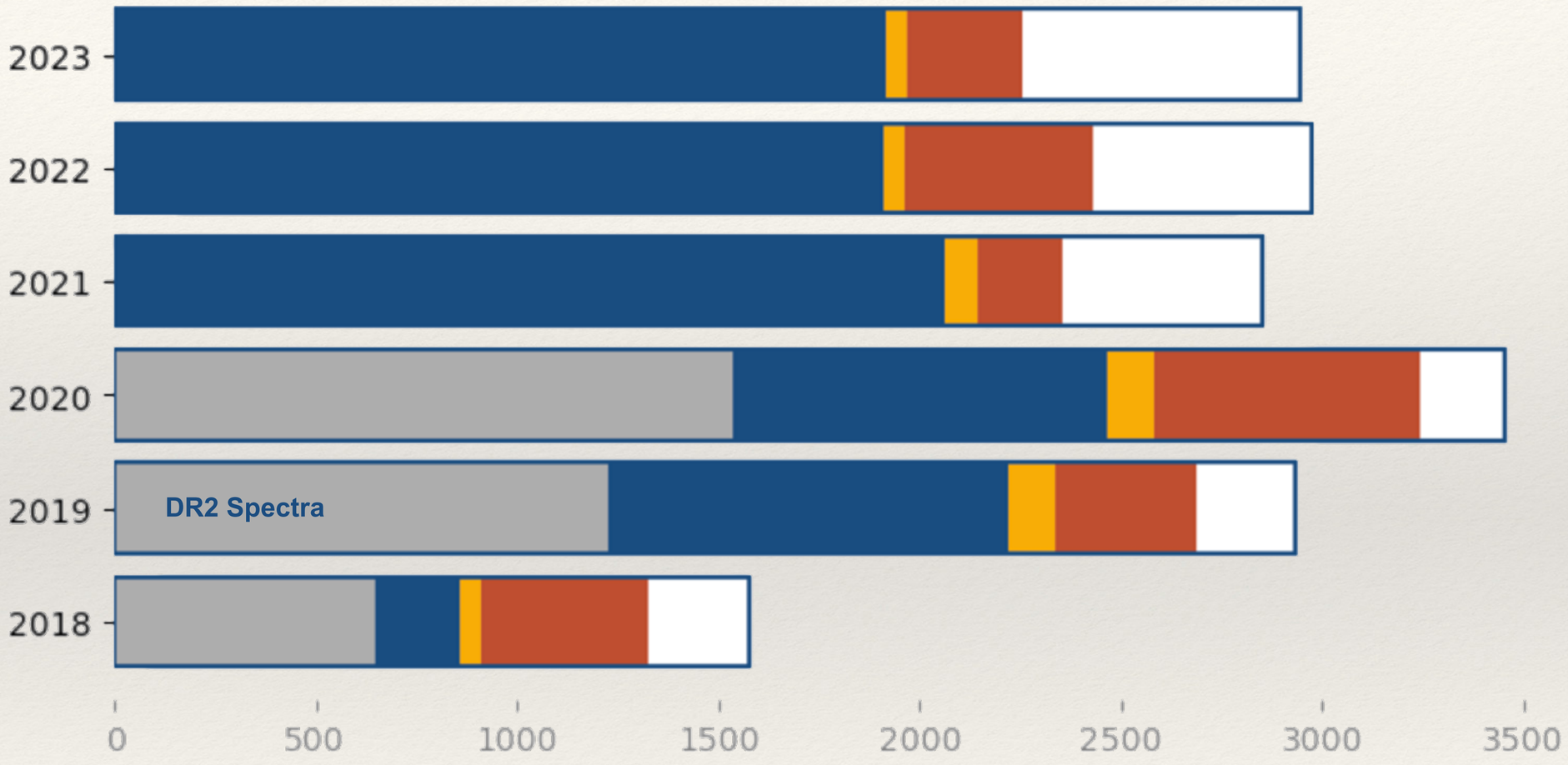
SED fitting succeed for **6071**

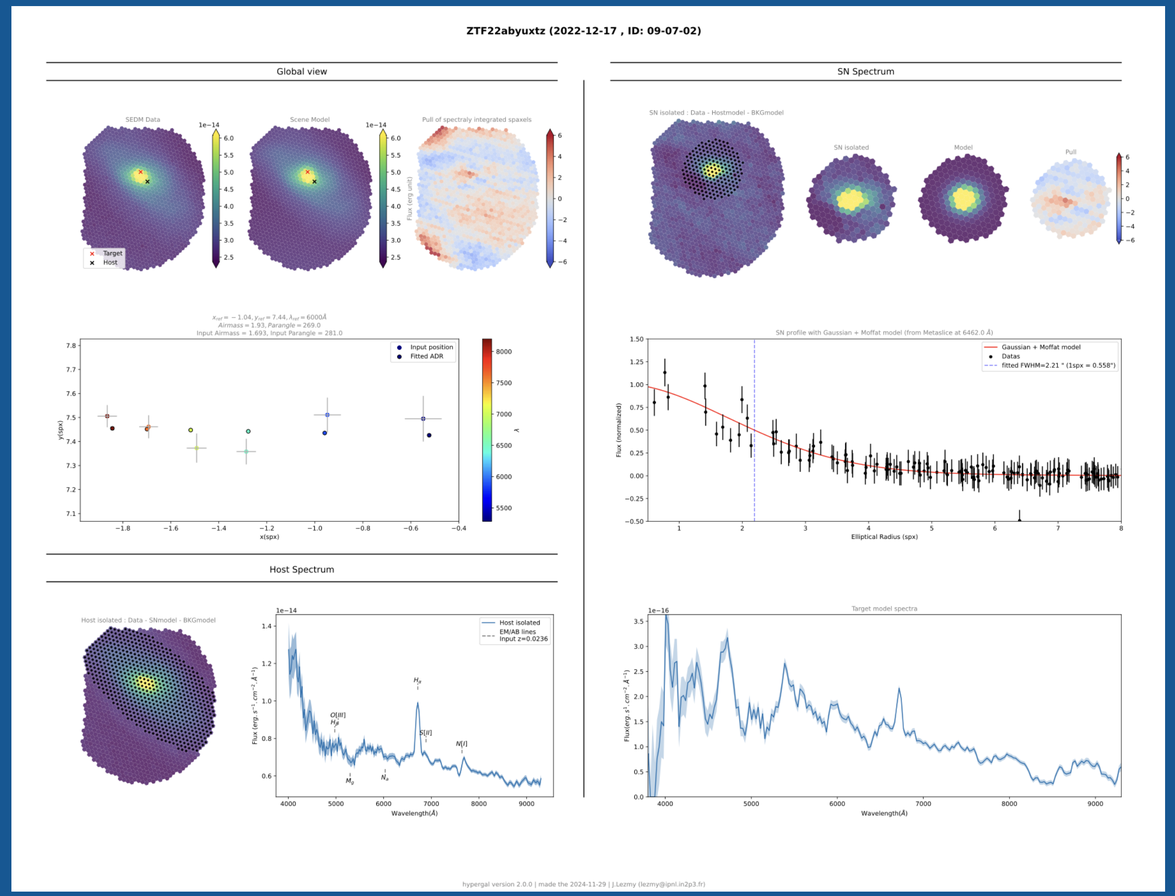
Leading to **5888** spectra

2018-2020

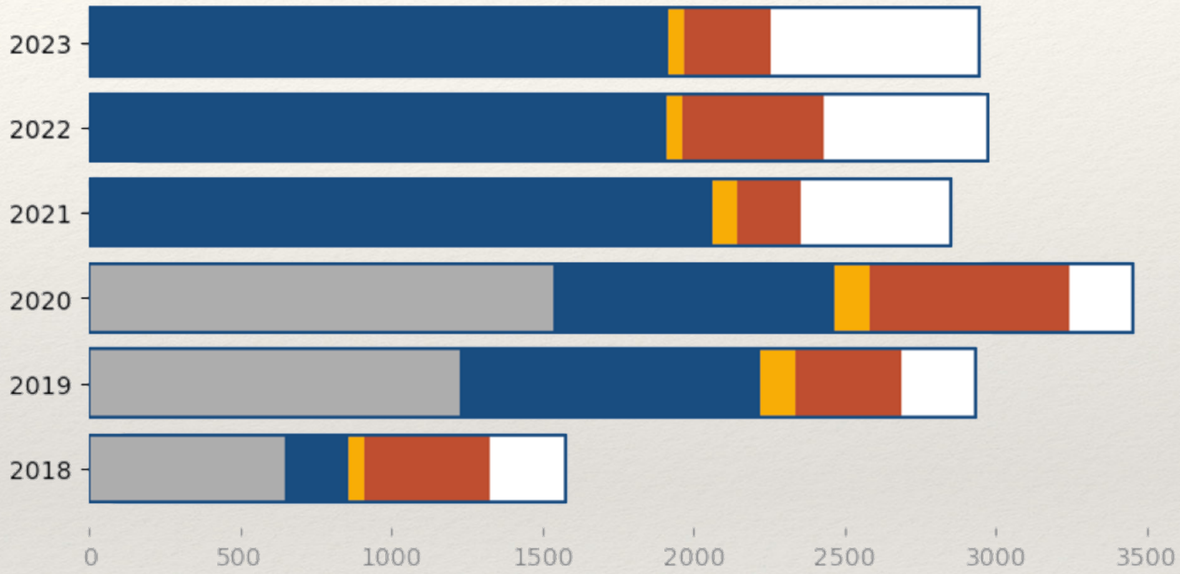
Not from initial DR2 list
non-Ia (or a few)

Find them in the dr3 repo: ztfcosmoidr/dr3/spectra




ZTF22abyuxtz (2022-12-17 , ID: 09-07-02)
Global view
SN Spectrum
SEDM Data
Scene Model
Pull of spectraly integrated spaxels
Target
Host
SN isolated - Data - Hostmodel - BKGmodel
SN isolated
Model
Pull
Input position
Fitted ADR
x(spx)
y(spx)
SN profile with Gaussian + Moffat model (from Metaslice at 6462.0 Å)
Gaussian + Moffat model
Datas
fitted FWHM=2.21 " (1spx = 0.558")
Flux (normalized)
Elliptical Radius (spx)
Host Spectrum
Host isolated - Data - SNmodel - BKGmodel
Host isolated
EM/AB lines
Input z=0.0236
Wavelength(Å)
Target model spectra
hypergal version 2.0.0 | made the 2024-11-29 | J.Lezmy (lezmy@ipnl.in2p3.fr)

x5888


2023
2022
2021
2020
2019
2018
0
500
1000
1500
2000
2500
3000
3500