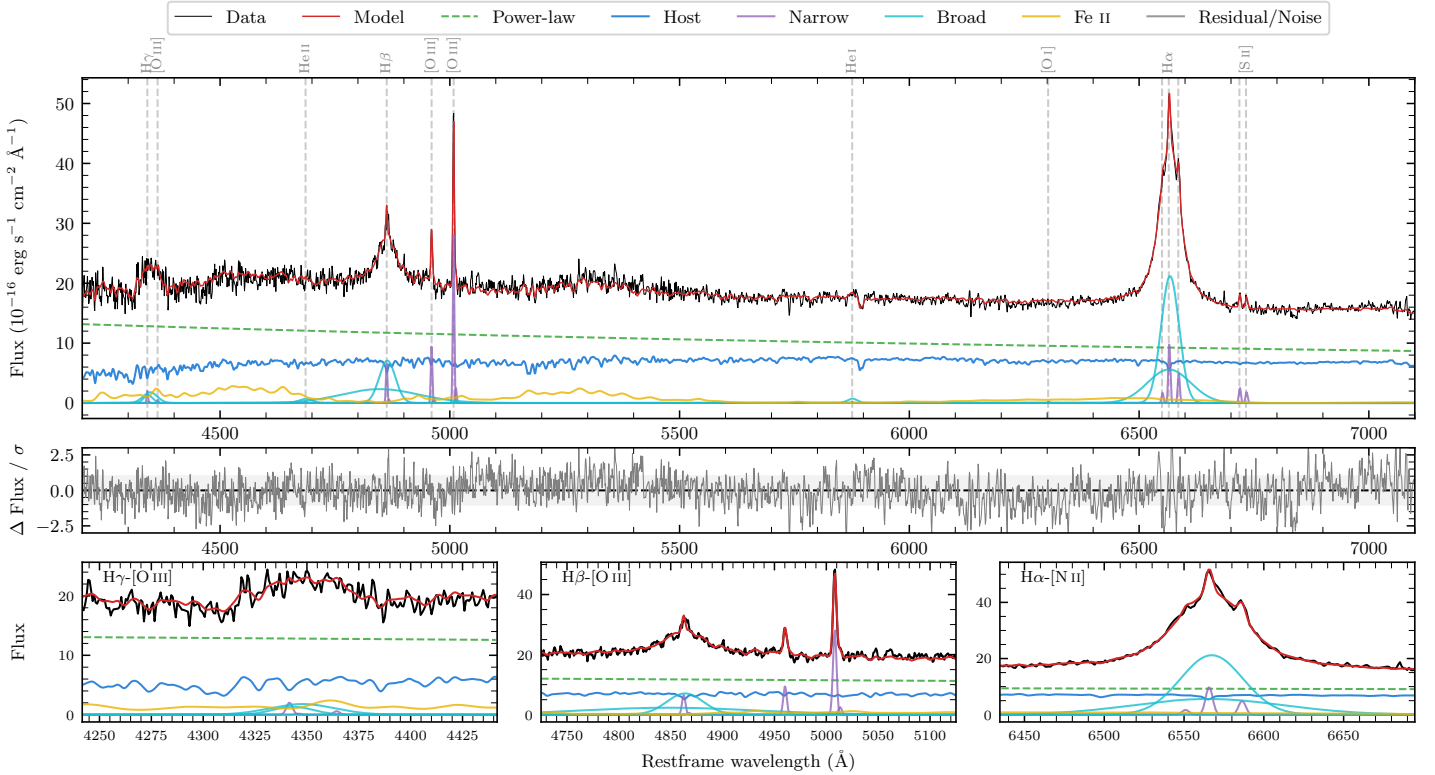
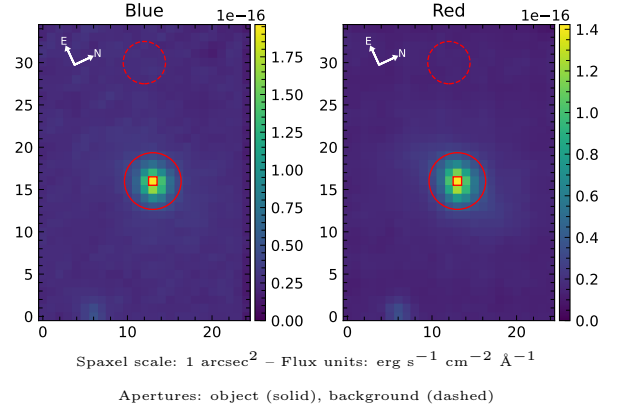


# ESO 31–8

Spectrum ID	491729490_sp1	Spectrum type	Sy 1.0
Alt name	g0307353–725003	Quality flag	good
$z$	0.0276	AGN reference	6dFGS
RA, Dec	46.8972, –72.8341	MW $E(B - V)$	0.038
MJD	60164.78	Power law $\alpha_\nu$	$-1.21 \pm 0.04$
SNR/ $\text{\AA}$ B/R	19.7/34.2	$\log L_{5100, \text{AGN}}$	$43.00 \pm 0.01$
Obs airmass	1.36	$\log H\beta_{\text{Br}}/[\text{O III}]$	$0.79 \pm 0.02$
SMSS ID	491729490	$\log M_{L5100}/M_\odot$	$7.47 \pm 0.03$
Neighbour	None $< 15''$	$\log M_{\text{H}\alpha}/M_\odot$	$6.95 \pm 0.03$
SMSS $\langle r_6'' \text{ap} \rangle$	$15.10 \pm 0.06$	$\log M_{\text{H}\beta}/M_\odot$	$7.45 \pm 0.04$
2MASS $K_{\text{ext}}$	$11.39 \pm 0.09$	$\log M_{[\text{O III}]} / M_\odot$	$7.20 \pm 0.06$



## Emission Line Measurements

Line	$\log L$ (erg s <sup>-1</sup> )	FWHM (km s <sup>-1</sup> )	$\sigma$ (km s <sup>-1</sup> )	EW (Å)
H $\gamma$ Narrow	$39.17 \pm 0.26$	$244 \pm 63$	$132 \pm 26$	$0.65 \pm 0.22$
<b>H<math>\gamma</math> Broad</b>	<b><math>40.27 \pm 0.06</math></b>	<b><math>2068 \pm 295</math></b>	<b><math>814 \pm 73</math></b>	<b><math>8.21 \pm 0.65</math></b>
[O III] 4364	–	–	–	–
He II Narrow	–	–	–	–
<b>He II Broad</b>	<b><math>39.66 \pm 0.18</math></b>	<b><math>2175 \pm 85</math></b>	<b><math>924 \pm 35</math></b>	<b><math>2.16 \pm 0.50</math></b>
H $\beta$ Narrow	$39.72 \pm 0.06$	$244 \pm 63$	$132 \pm 26$	$2.58 \pm 0.20$
<b>H<math>\beta</math> Broad</b>	<b><math>41.16 \pm 0.01</math></b>	<b><math>3157 \pm 86</math></b>	<b><math>2845 \pm 58</math></b>	<b><math>70.50 \pm 1.21</math></b>
[O III] 5007	$40.37 \pm 0.01$	$244 \pm 63$	$132 \pm 26$	$11.75 \pm 0.19$
He I Narrow	–	–	–	–
<b>He I Broad</b>	<b><math>39.56 \pm 0.10</math></b>	<b><math>1286 \pm 73</math></b>	<b><math>546 \pm 29</math></b>	<b><math>2.02 \pm 0.25</math></b>
[O I] 6300	$38.29 \pm 0.44$	$240 \pm 63$	$101 \pm 25$	$0.12 \pm 0.11$
H $\alpha$ Narrow	$39.99 \pm 0.02$	$240 \pm 63$	$101 \pm 25$	$6.10 \pm 0.16$
<b>H<math>\alpha</math> Broad</b>	<b><math>41.48 \pm 0.01</math></b>	<b><math>2396 \pm 64</math></b>	<b><math>1097 \pm 25</math></b>	<b><math>188.57 \pm 0.62</math></b>
[N II] 6585	$39.70 \pm 0.04$	$240 \pm 63$	$101 \pm 25$	$3.08 \pm 0.15$
[S II] 6718	$39.41 \pm 0.06$	$240 \pm 63$	$101 \pm 25$	$1.62 \pm 0.13$
[S II] 6732	$39.27 \pm 0.07$	$240 \pm 63$	$101 \pm 25$	$1.18 \pm 0.14$

## Emission Summary

H $\alpha$ broad SNR	26.72
H $\beta$ broad SNR	9.34
H $\gamma$ broad SNR	3.15
AGN frac	0.64
Host frac	0.36
$\log L_{5100, \text{Host}}$	42.75
Fe II/H $\beta$	0.80
Fe II/[O III]	4.93

## Quality Flags

spurious_hab/hbb	0/0
15100	0
balmer	0
balmer_snr	0
hb_width	2
balmer_width	0