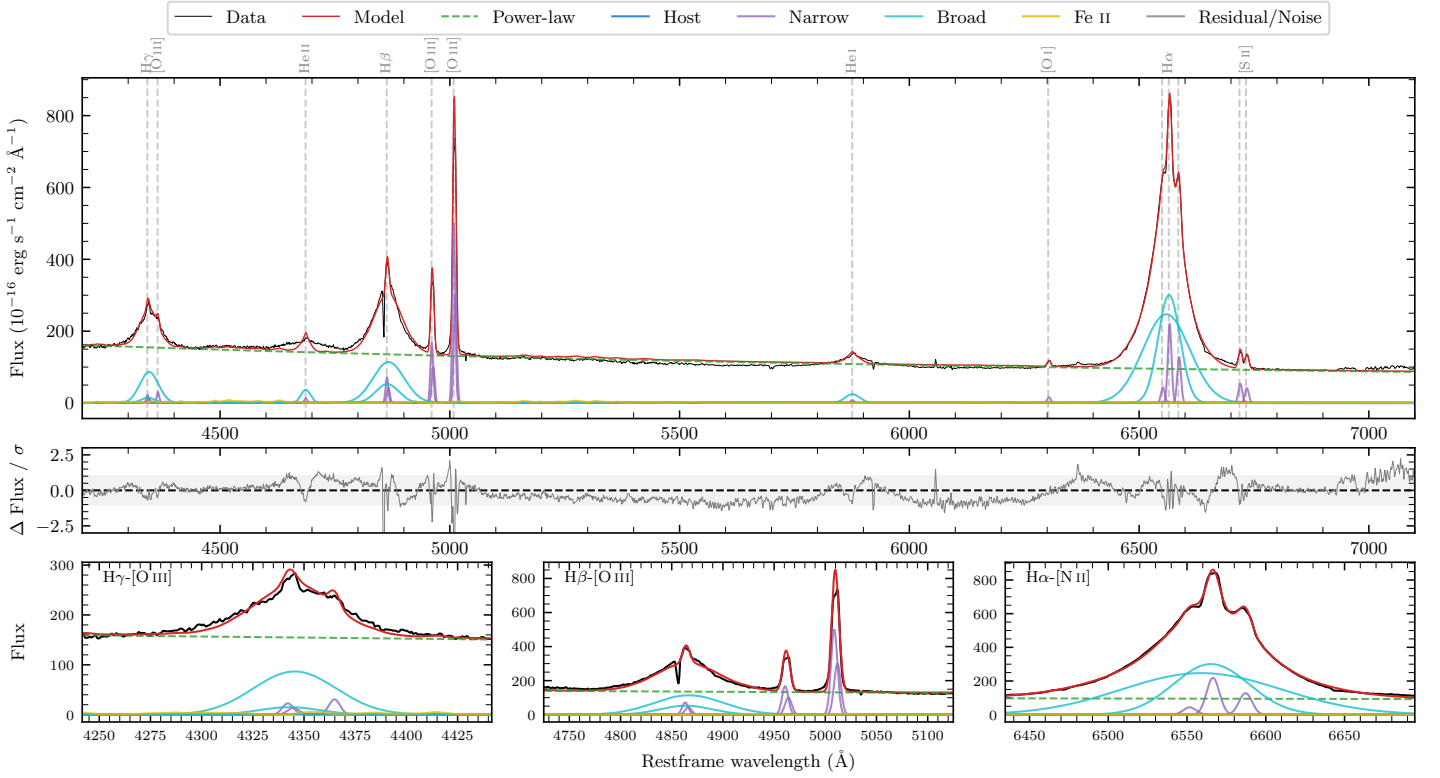
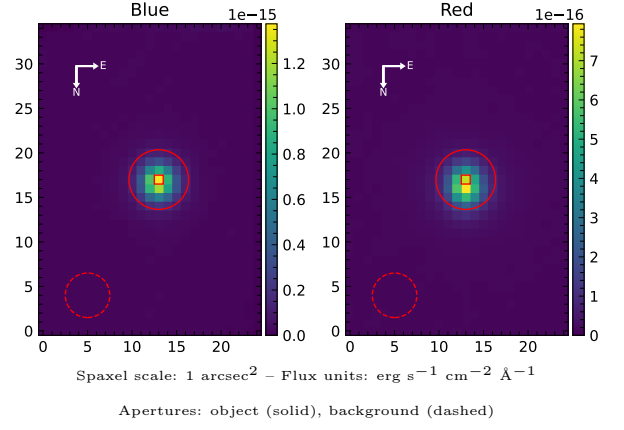


Mrk 509

Spectrum ID	298660322_sp1	Spectrum type	Sy 1.2
Alt name	Mrk509	Quality flag	good
z	0.0345	AGN reference	M+1973
RA, Dec	311.0404, -10.7236	MW $E(B - V)$	0.049
MJD	60563.63	Power law α_ν	-0.82 ± 0.05
SNR/ \AA B/R	9.1/13.0	$\log L_{5100, \text{AGN}}$	44.25 ± 0.01
Obs airmass	1.76	$\log H\beta_{\text{Br}}/[\text{O III}]$	0.35 ± 0.04
SMSS ID	298660322	$\log M_{L5100}/M_\odot$	8.31 ± 0.09
Neighbour	None $< 15''$	$\log M_{\text{H}\alpha}/M_\odot$	8.28 ± 0.06
SMSS $\langle r_6'' \text{ap} \rangle$	13.43 ± 0.03	$\log M_{\text{H}\beta}/M_\odot$	8.39 ± 0.09
2MASS K_{ext}	10.01 ± 0.02	$\log M_{[\text{O III}]} / M_\odot$	8.41 ± 0.09



Emission Line Measurements

Line	$\log L$ (erg s ⁻¹)	FWHM (km s ⁻¹)	σ (km s ⁻¹)	EW (Å)
H γ Narrow	40.81 ± 0.21	520 ± 65	213 ± 28	1.68 ± 0.39
Hγ Broad	42.16 ± 0.05	3159 ± 208	1177 ± 80	33.15 ± 0.98
[O III] 4364	40.72 ± 0.23	439 ± 97	185 ± 40	1.40 ± 0.36
He II Narrow	40.44 ± 0.31	439 ± 97	185 ± 40	0.78 ± 0.31
He II Broad	41.48 ± 0.30	1562 ± 1244	663 ± 528	7.08 ± 0.59
H β Narrow	41.38 ± 0.07	520 ± 65	213 ± 28	6.80 ± 0.34
Hβ Broad	42.57 ± 0.04	4465 ± 439	1698 ± 274	99.89 ± 1.13
[O III] 5007	42.22 ± 0.01	520 ± 65	213 ± 28	50.31 ± 0.45
He I Narrow	40.30 ± 0.31	439 ± 97	185 ± 40	0.74 ± 0.27
He I Broad	41.45 ± 0.08	1938 ± 196	823 ± 82	9.53 ± 0.53
[O I] 6300	40.61 ± 0.13	439 ± 97	185 ± 40	1.66 ± 0.25
H α Narrow	41.80 ± 0.12	439 ± 97	185 ± 40	24.43 ± 0.65
Hα Broad	43.15 ± 0.01	3455 ± 180	1567 ± 77	538.78 ± 1.35
[N II] 6585	41.56 ± 0.14	439 ± 97	185 ± 40	14.39 ± 0.59
[S II] 6718	41.18 ± 0.06	439 ± 97	185 ± 40	6.31 ± 0.30
[S II] 6732	41.07 ± 0.06	439 ± 97	185 ± 40	4.91 ± 0.29

Emission Summary

H α broad SNR	34.52
H β broad SNR	10.57
H γ broad SNR	6.34
AGN frac	0.98
Host frac	0.01
$\log L_{5100, \text{Host}}$	42.22
Fe II/H β	0.10
Fe II/[O III]	0.20

Quality Flags

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