

**SDSS\_J1631+4309\_MJD56093**

**Rest Wavelength ( $\text{\AA}$ )**

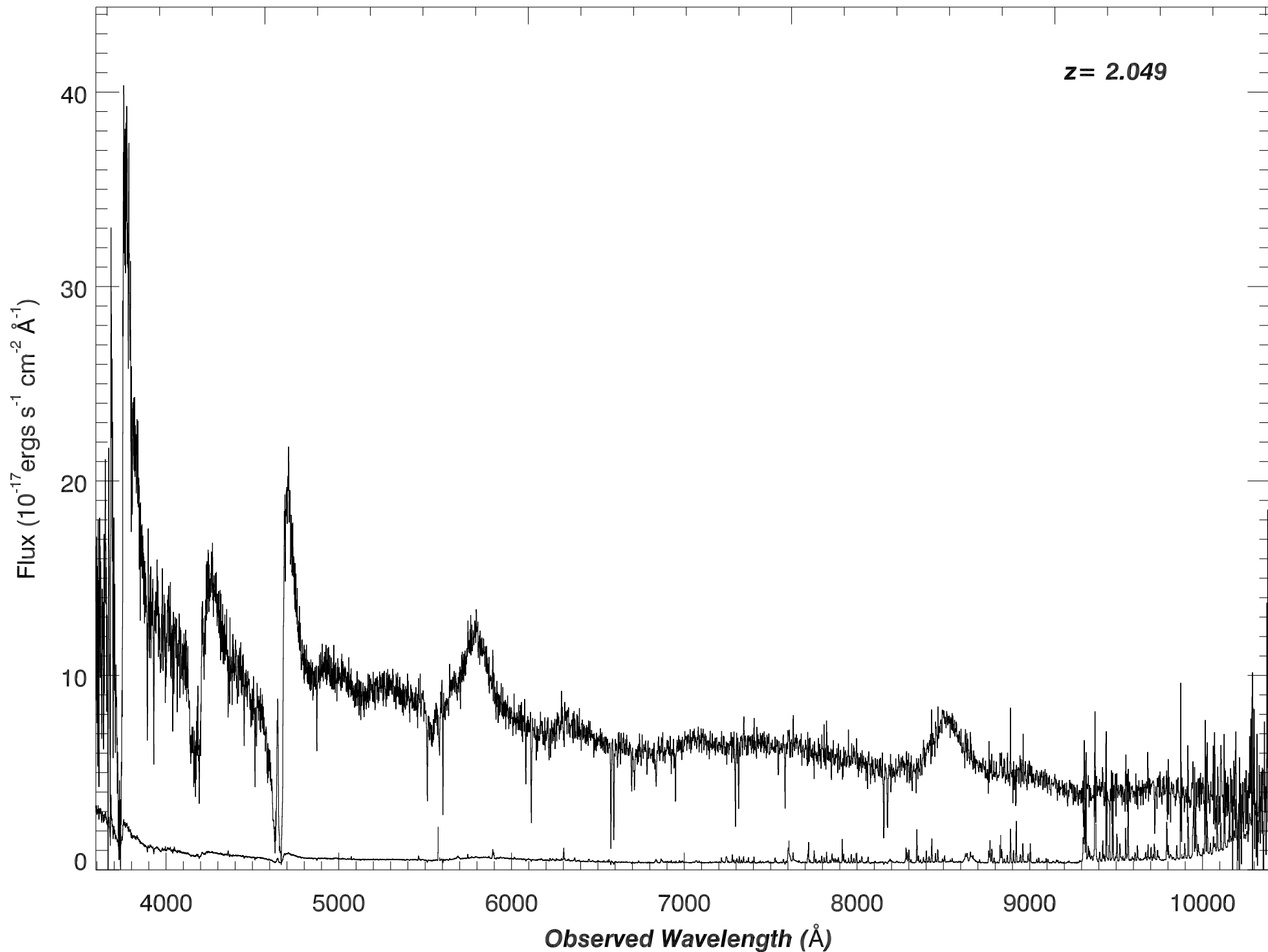
**1500**

**2000**

**2500**

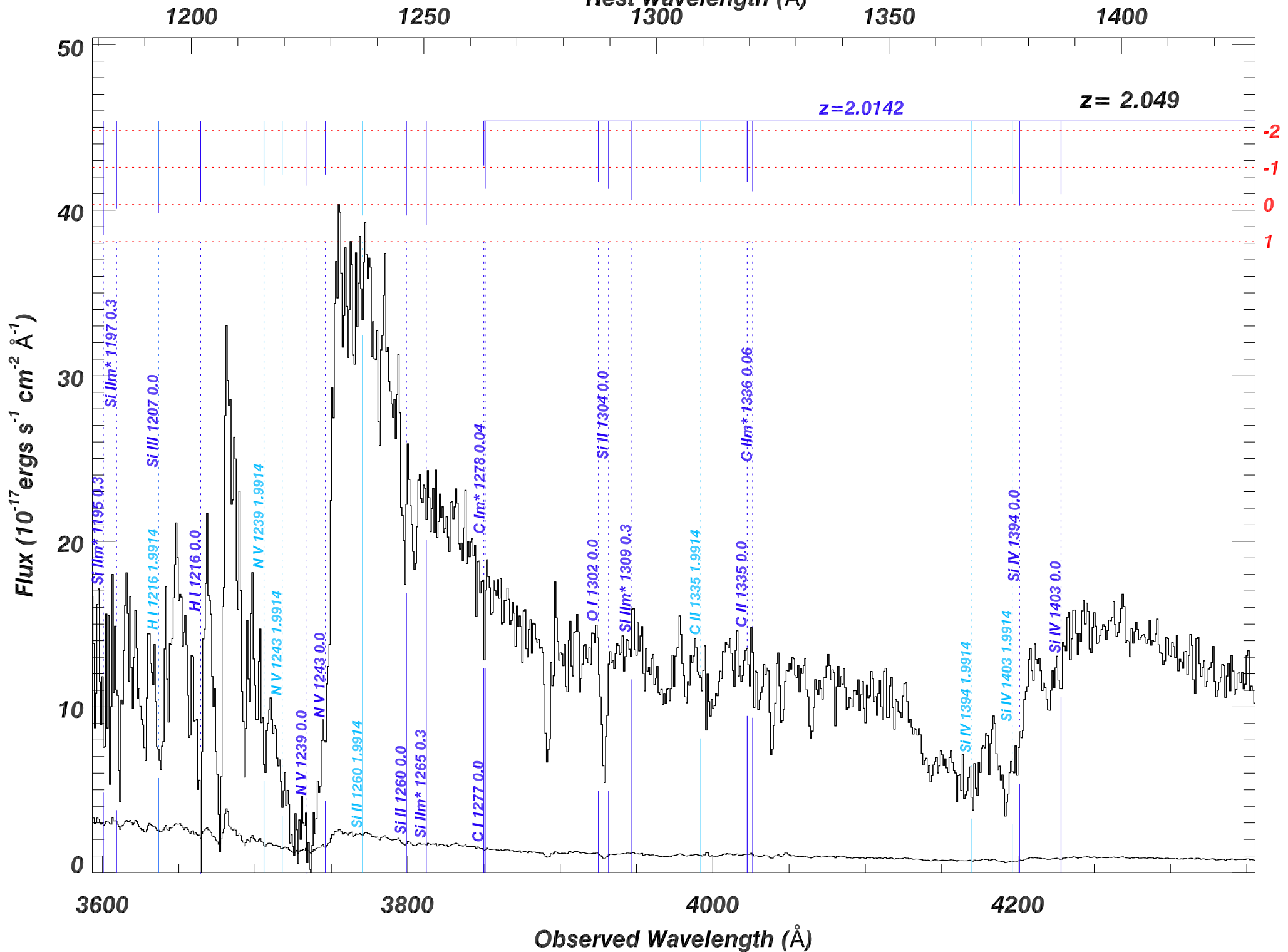
**3000**

**$z = 2.049$**

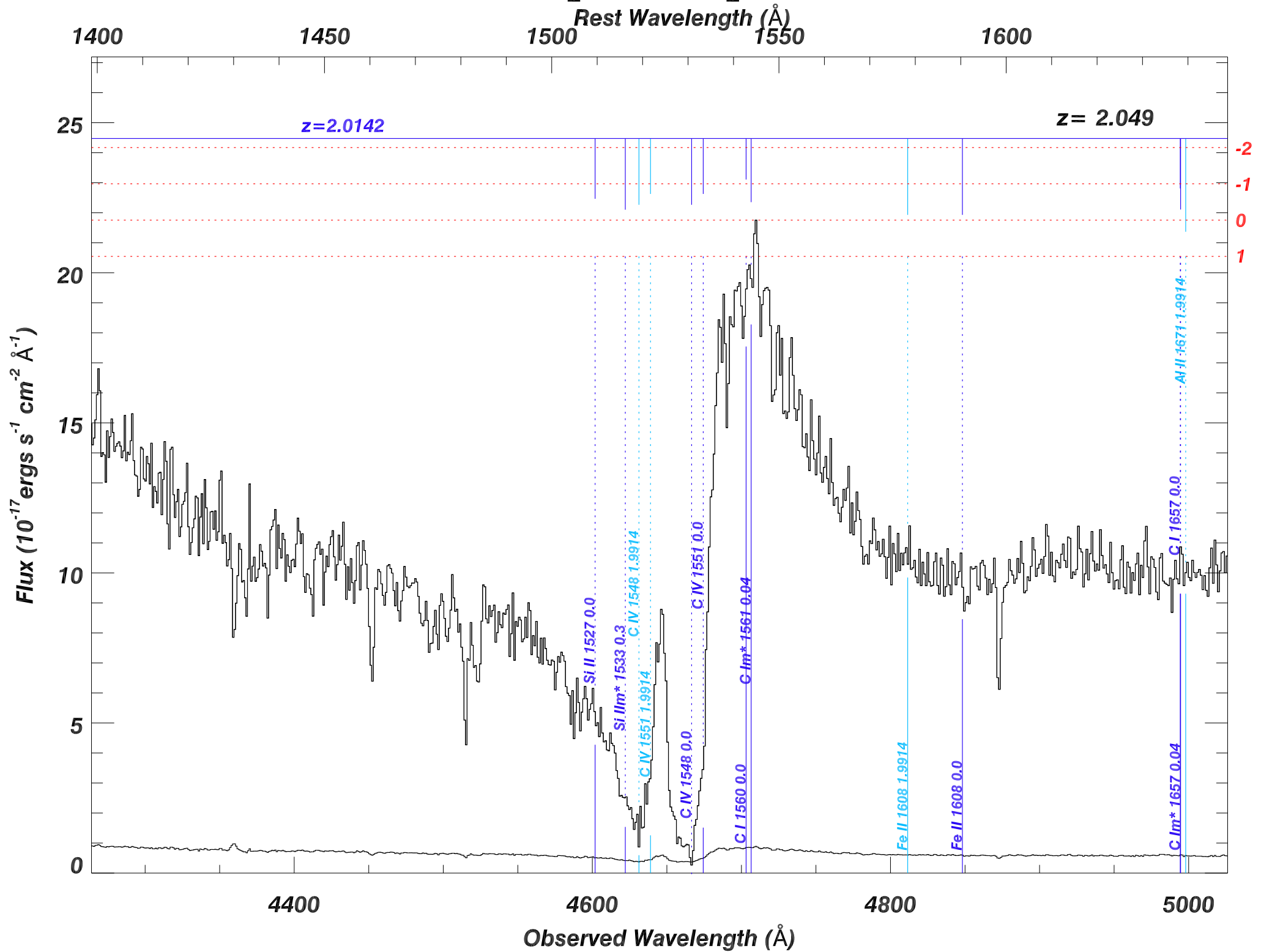


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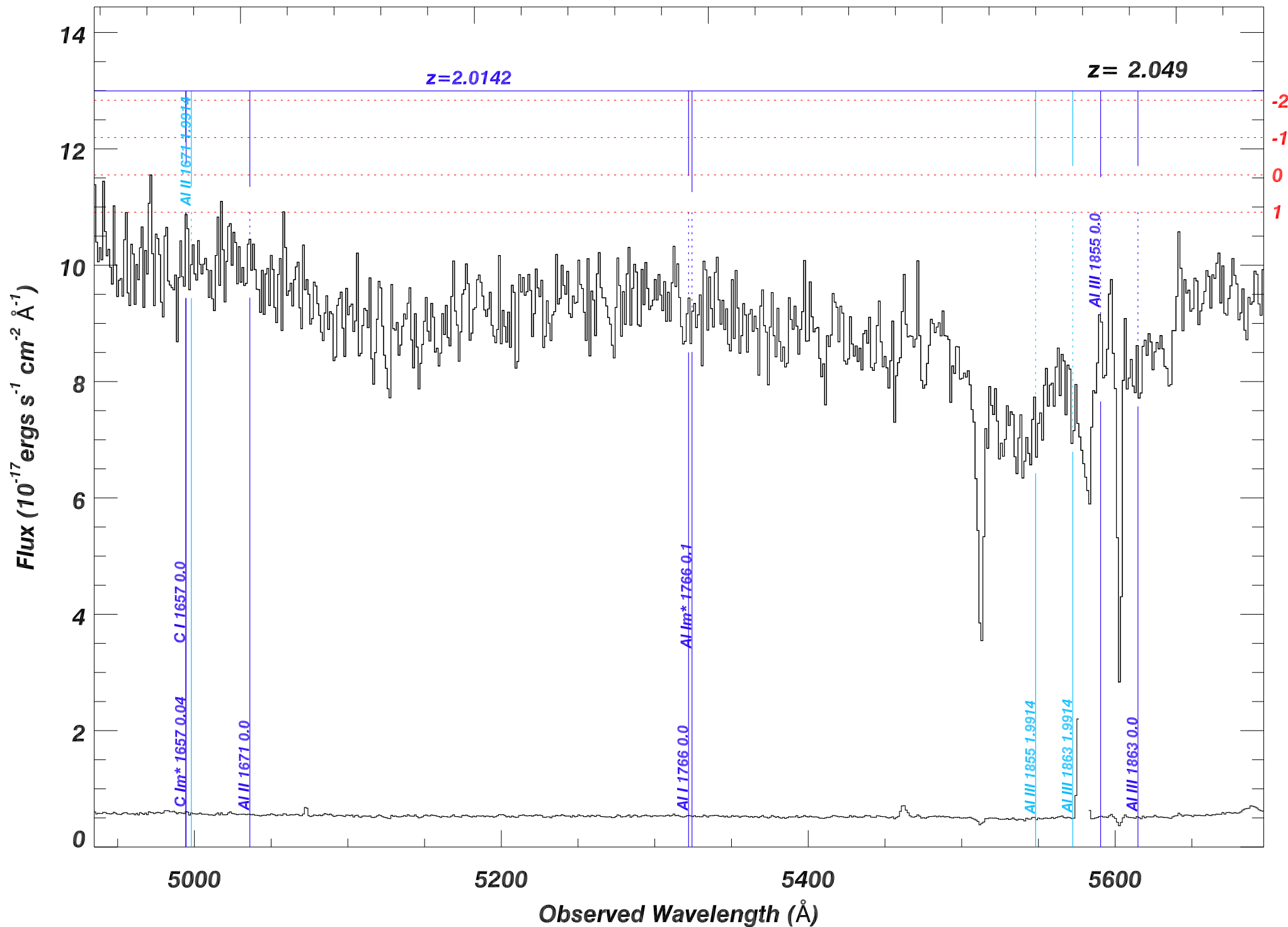
1650

1700

1750

1800

1850



# SDSS\_J1631+4309\_MJD56093

Rest Wavelength ( $\text{\AA}$ )

1850

1900

1950

2000

2050

Flux ( $10^{-17} \text{ ergs s}^{-1} \text{ cm}^{-2} \text{ \AA}^{-1}$ )

15

10

5

0

$z=2.0142$

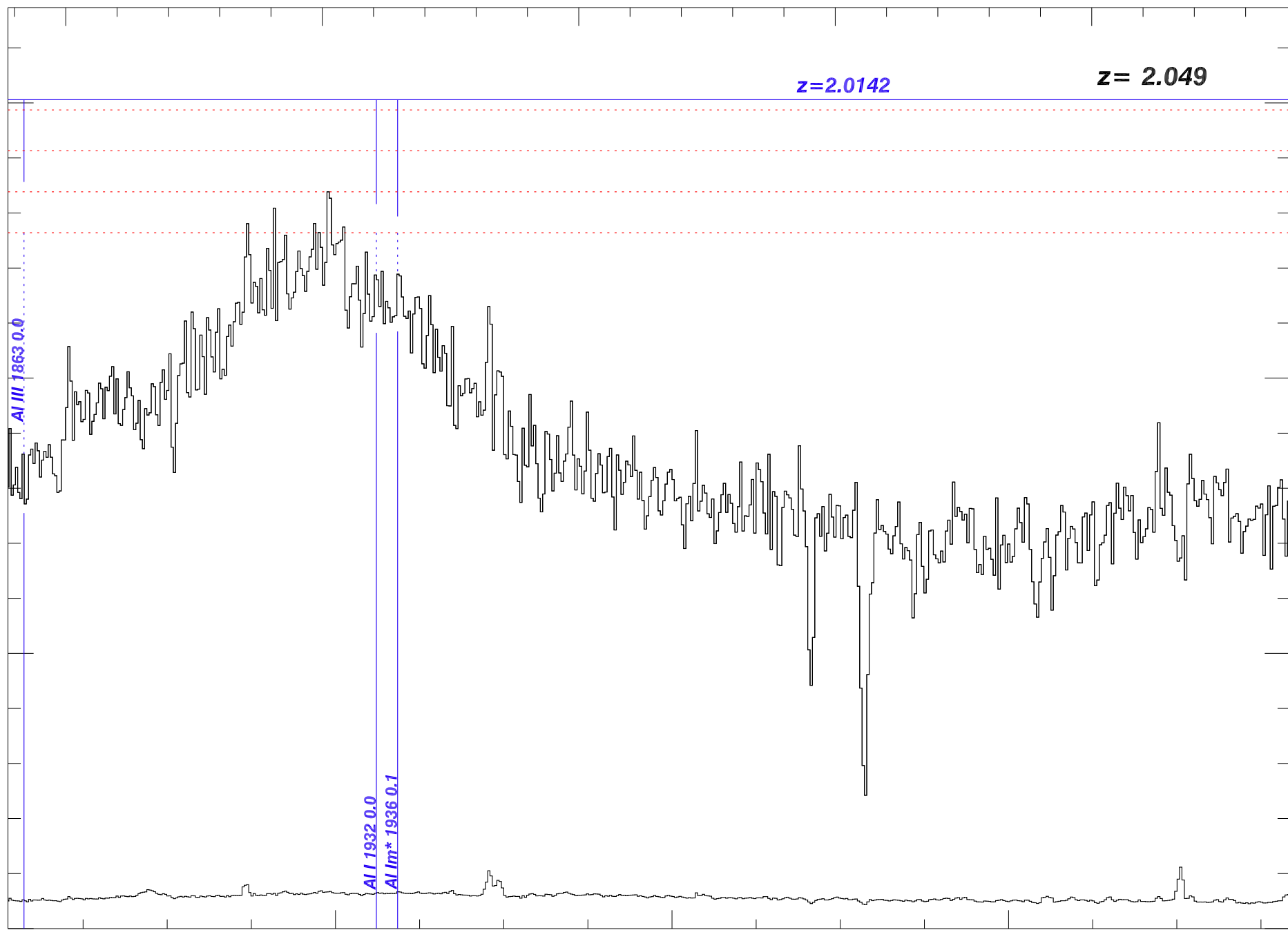
$z=2.049$

-2

-1

0

1



5800

6000

6200

Observed Wavelength ( $\text{\AA}$ )

# SDSS\_J1631+4309\_MJD56093

Rest Wavelength ( $\text{\AA}$ )

2100

2150

2200

2250

2300

$z=2.0142$

$z=2.049$

Flux ( $10^{-17} \text{ ergs s}^{-1} \text{ cm}^{-2} \text{ \AA}^{-1}$ )

10

8

6

4

2

0

-2

-1

0

1

Fe II 2344 1.9914

Fe I/m\* 2333 0.4

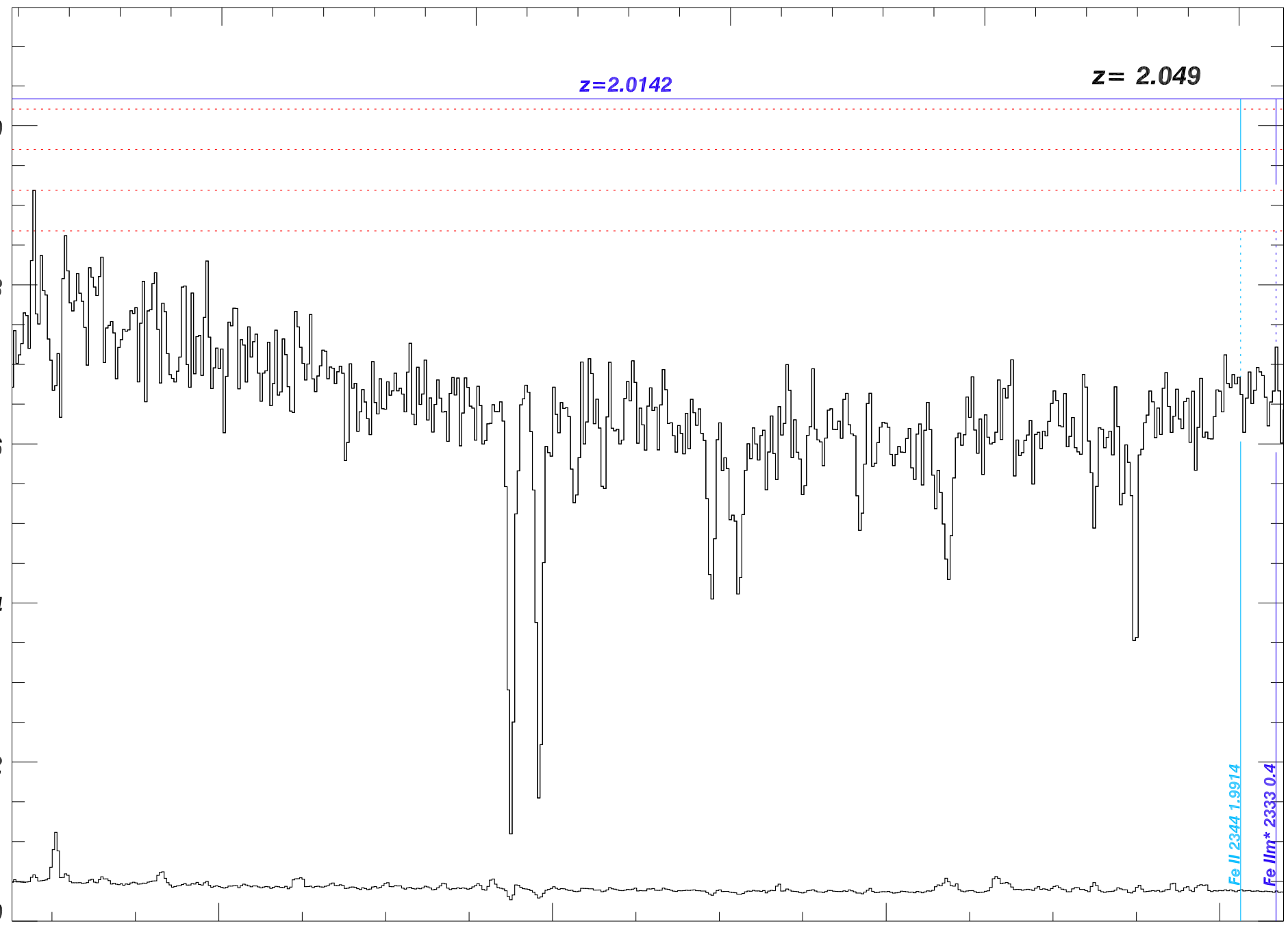
6400

6600

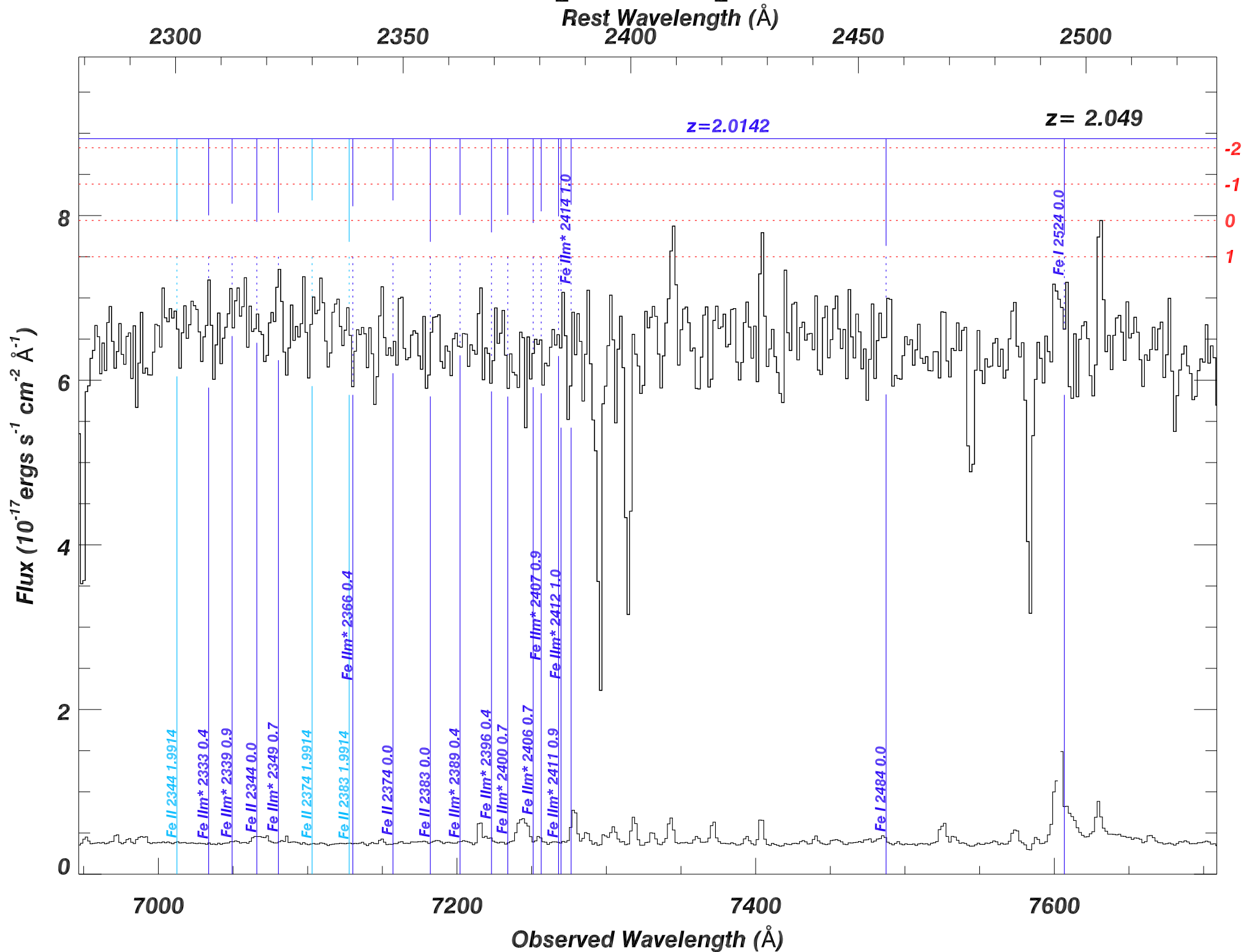
6800

7000

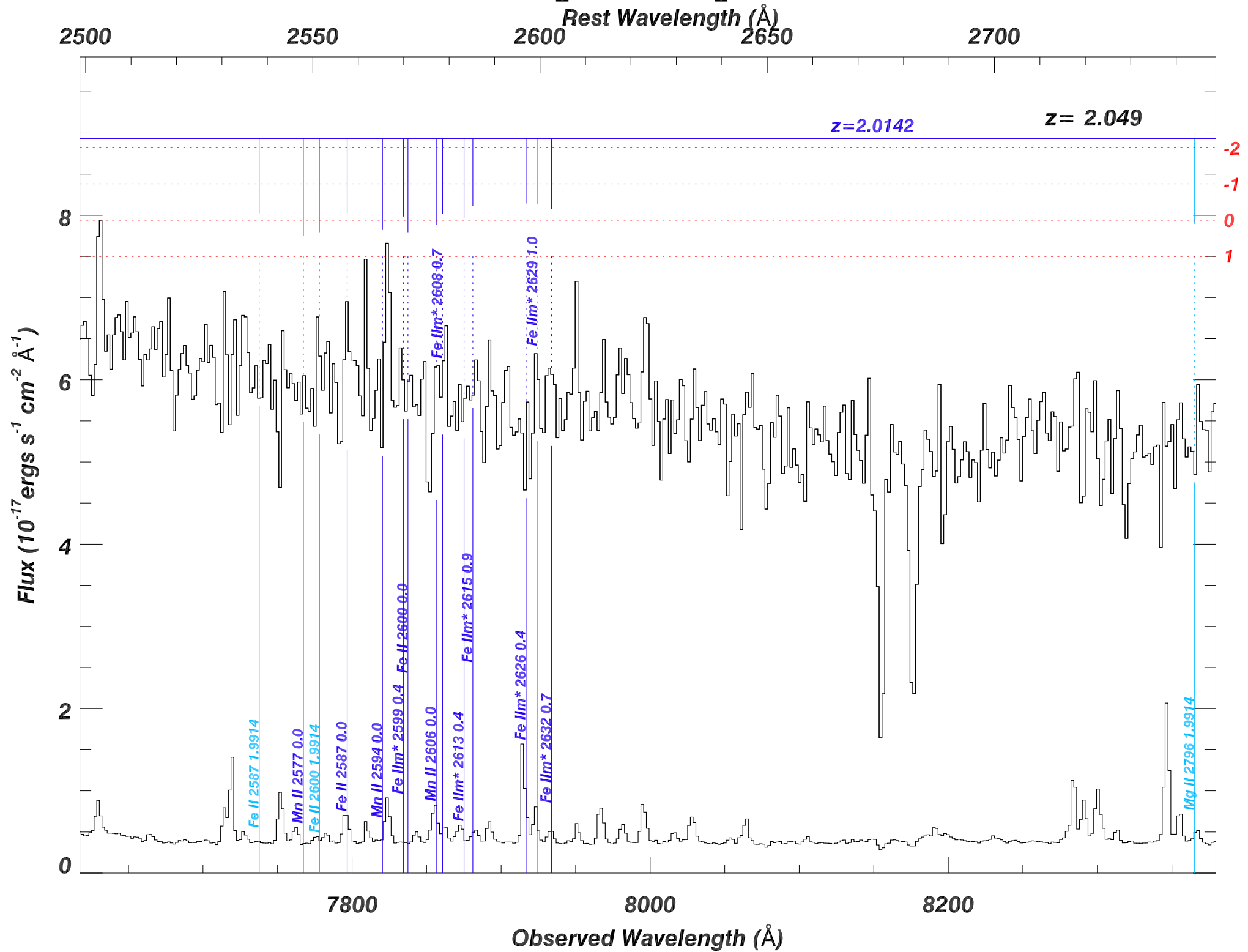
Observed Wavelength ( $\text{\AA}$ )



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# SDSS\_J1631+4309\_MJD56093

Rest Wavelength ( $\text{\AA}$ )

2750

2800

2850

2900

2950

$z=2.0142$

$z=2.049$

Flux ( $10^{-17} \text{ ergs s}^{-1} \text{ cm}^{-2} \text{ \AA}^{-1}$ )

10

8

6

4

2

0

-2

-1

0

1

8400

8600

8800

9000

Observed Wavelength ( $\text{\AA}$ )

Mg II 2796 1.9914

Mg II 2804 1.9914

Mg II 2796 0.0

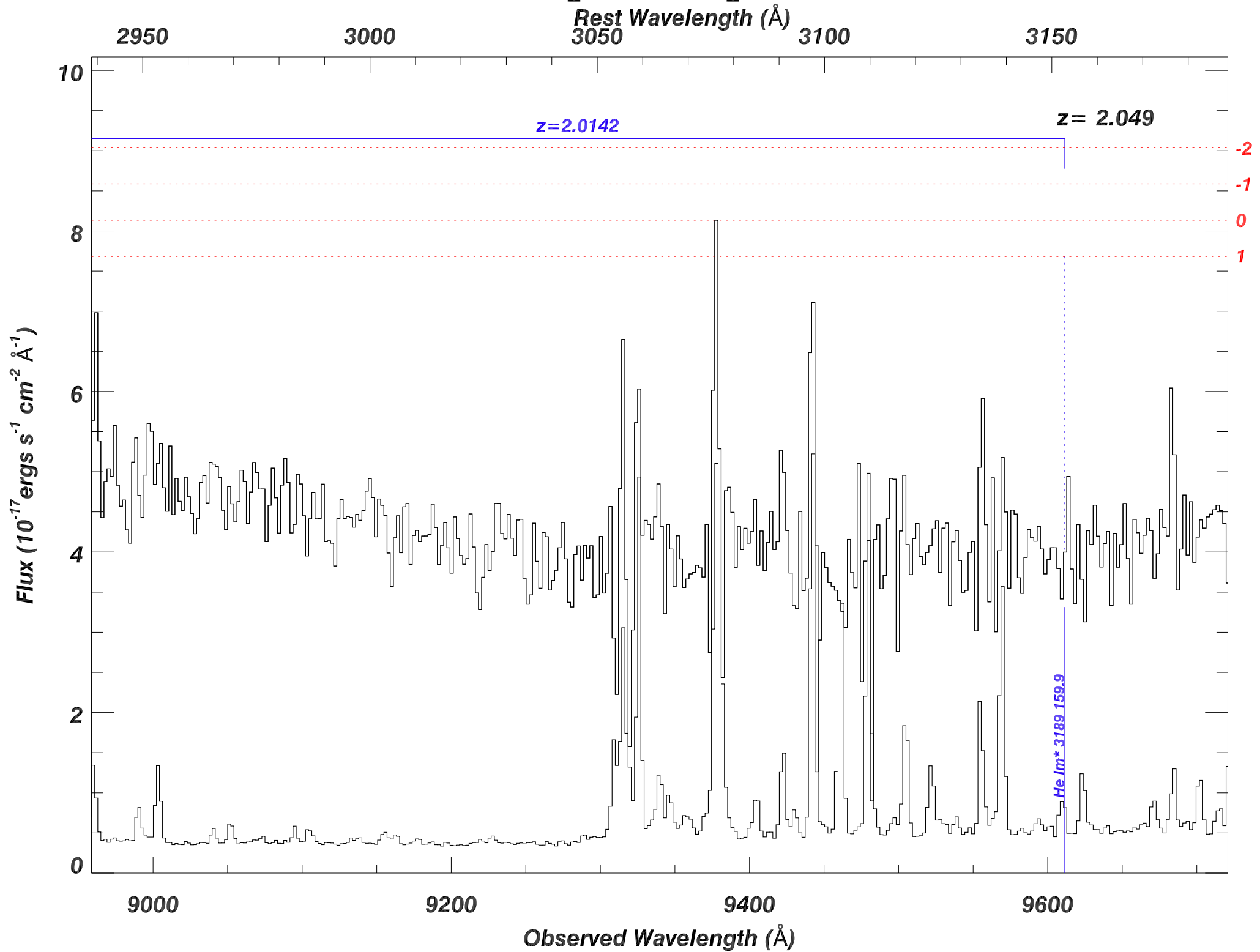
Mg II 2804 0.0

Mg I 2853 1.9914

Mg I 2853 0.0

He I m\* 2946 159.9

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# SDSS\_J1631+4309\_MJD56093

Rest Wavelength ( $\text{\AA}$ )

3200

3300

3400

3500

$z = 2.049$

Flux ( $10^{-17} \text{ ergs s}^{-1} \text{ cm}^{-2} \text{ \AA}^{-1}$ )

20

15

10

5

0

-2

-1

0

1

$9.80 \times 10^3$

$1.00 \times 10^4$

$1.02 \times 10^4$

$1.04 \times 10^4$

$1.06 \times 10^4$

$1.08 \times 10^4$

Observed Wavelength ( $\text{\AA}$ )

