A COMPREHENSIVE STUDY OF DOUBLE-LINED BINARY WHITE DWARFS

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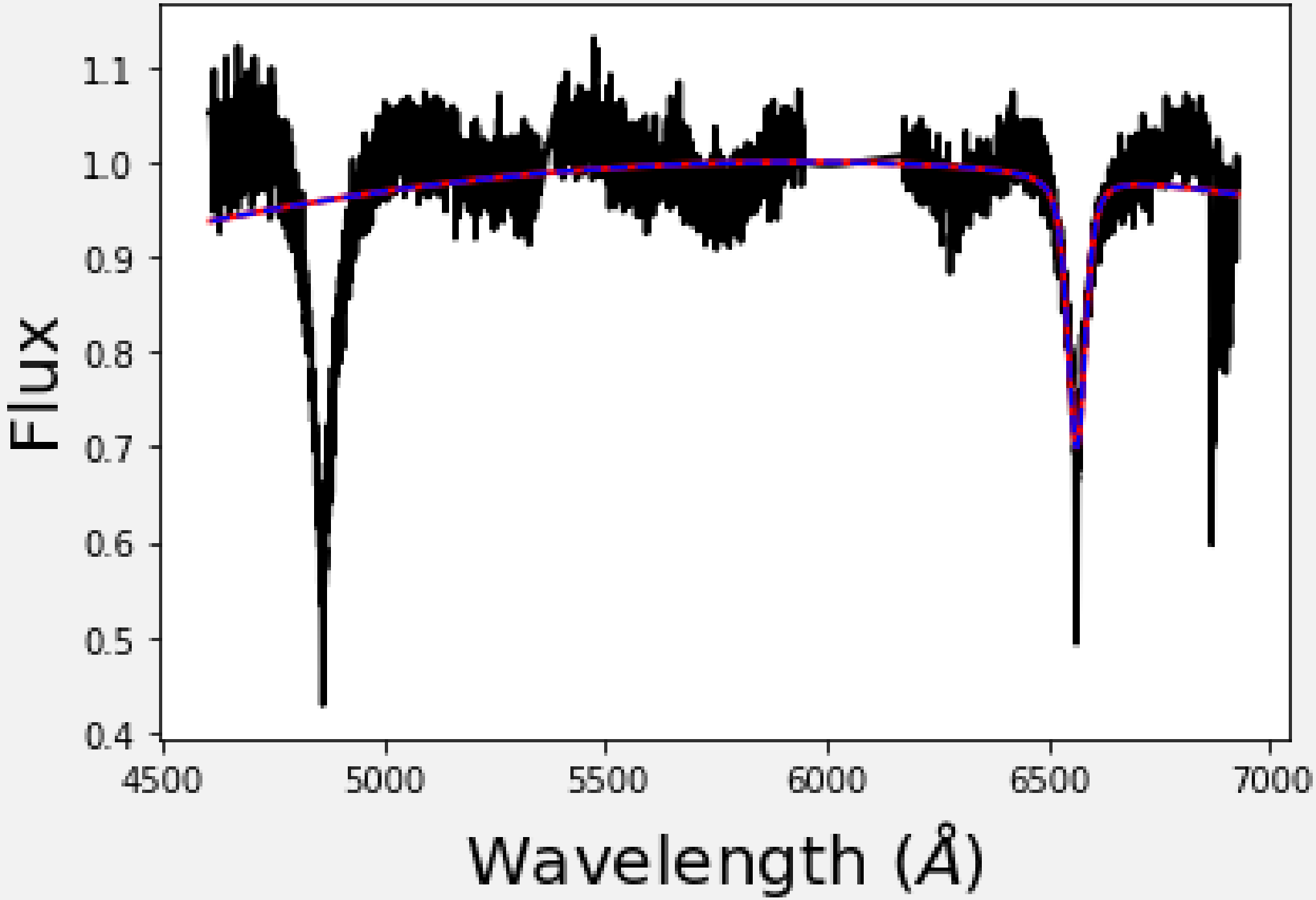
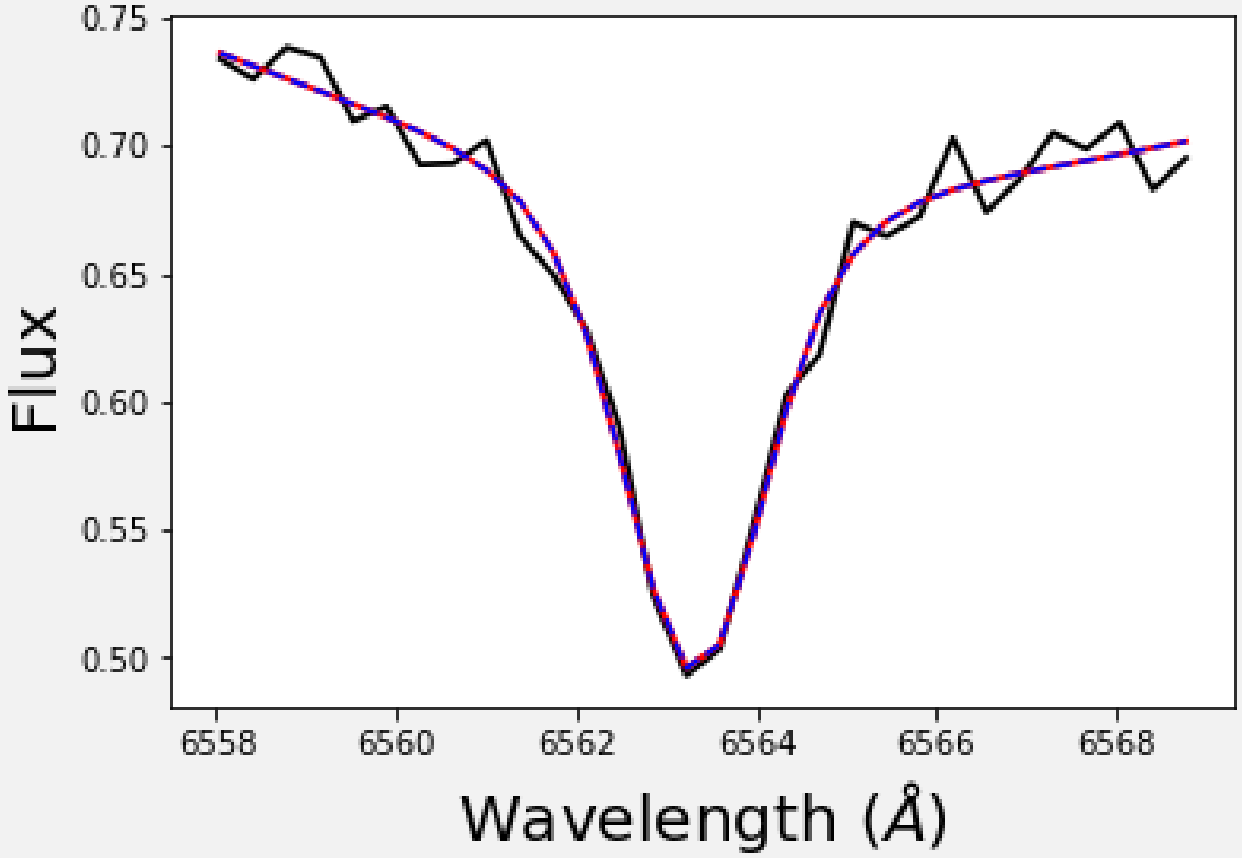
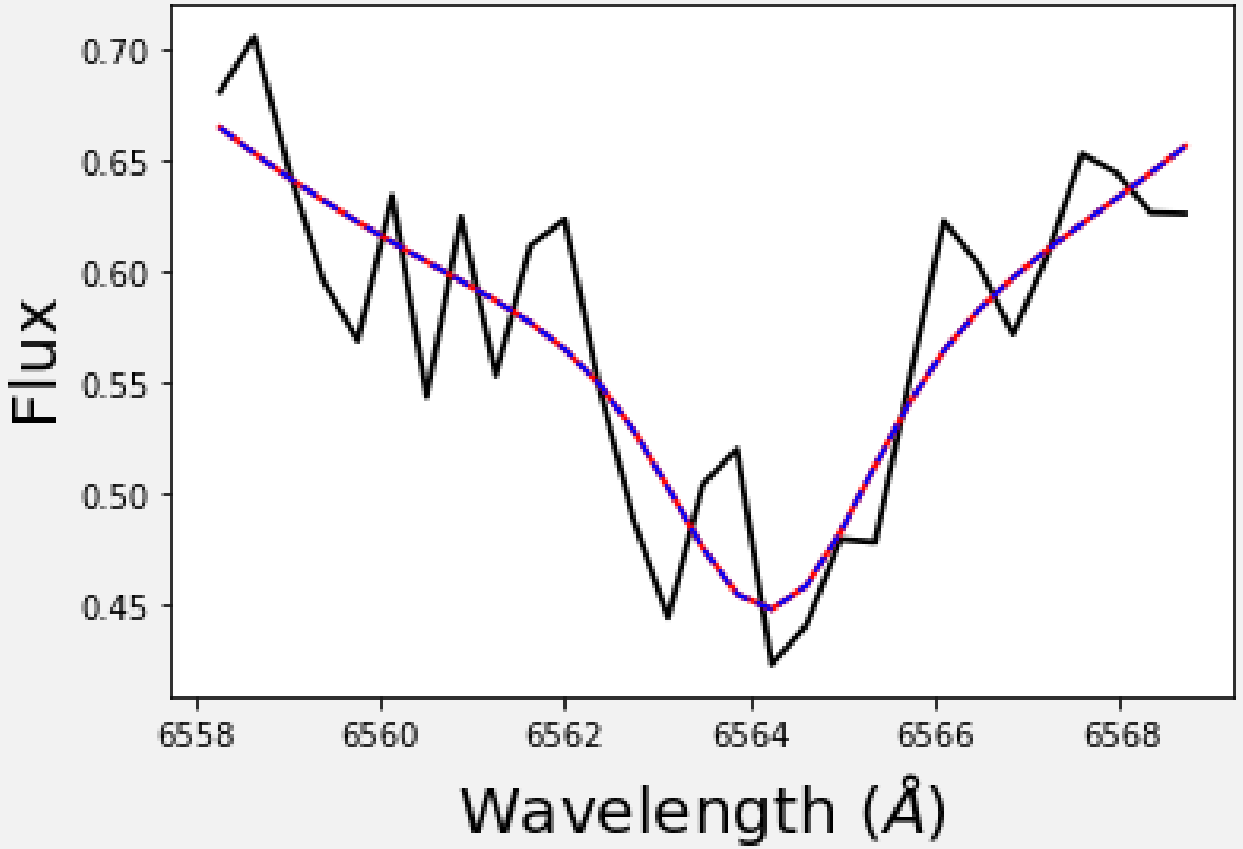

Flux
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
4500
5000
5500
6000
6500
7000
Wavelength (Å)

H-ALPHA EMISSION LINE





DOPPLER EFFECT

$$v = \frac{\Delta\lambda}{\lambda_0} \times c$$

$v \equiv$ line of sight velocity

$\lambda_0 \equiv$ rest wavelength

$\Delta\lambda \equiv$ measured wavelength – rest wavelength

$c \equiv$ speed of light

BOOTSTRAPPING

- Statistical method of measuring uncertainty
  - The data is sorted, and any duplicates are removed
  - Randomly selects data values (with replacement) 2000 times
  - The standard deviation is calculated for each time and the average of these gives the uncertainty

QUESTIONS?