

SPIRou Line-by-line Radial Velocity

Object: TOI2120, Template: GL699, Zero-point corrected: True

Number of exposures: 66, Number of epochs: 17

Diagnostic Plots

2023-05-31

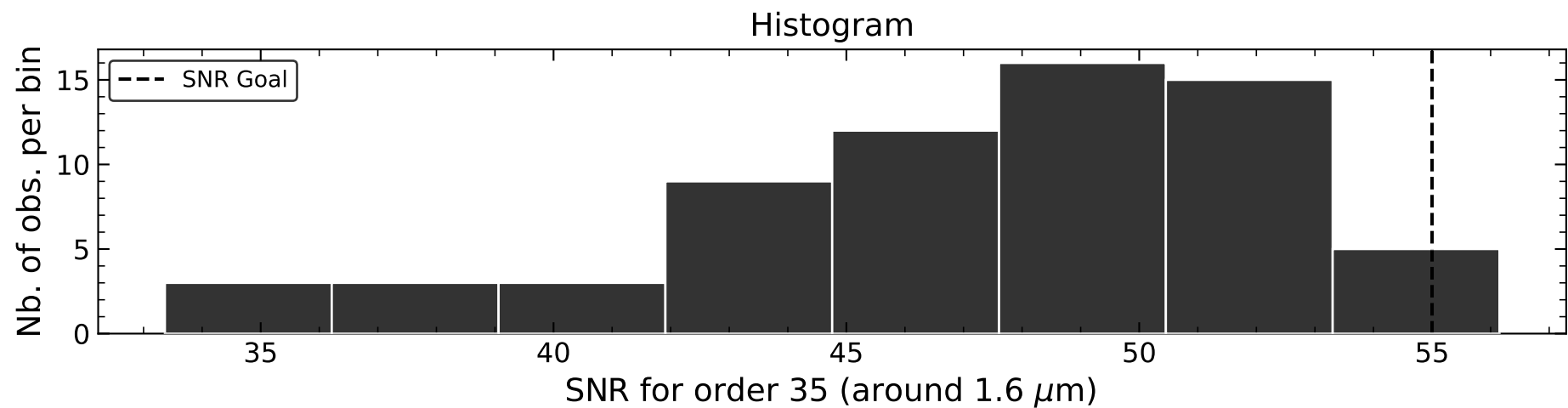
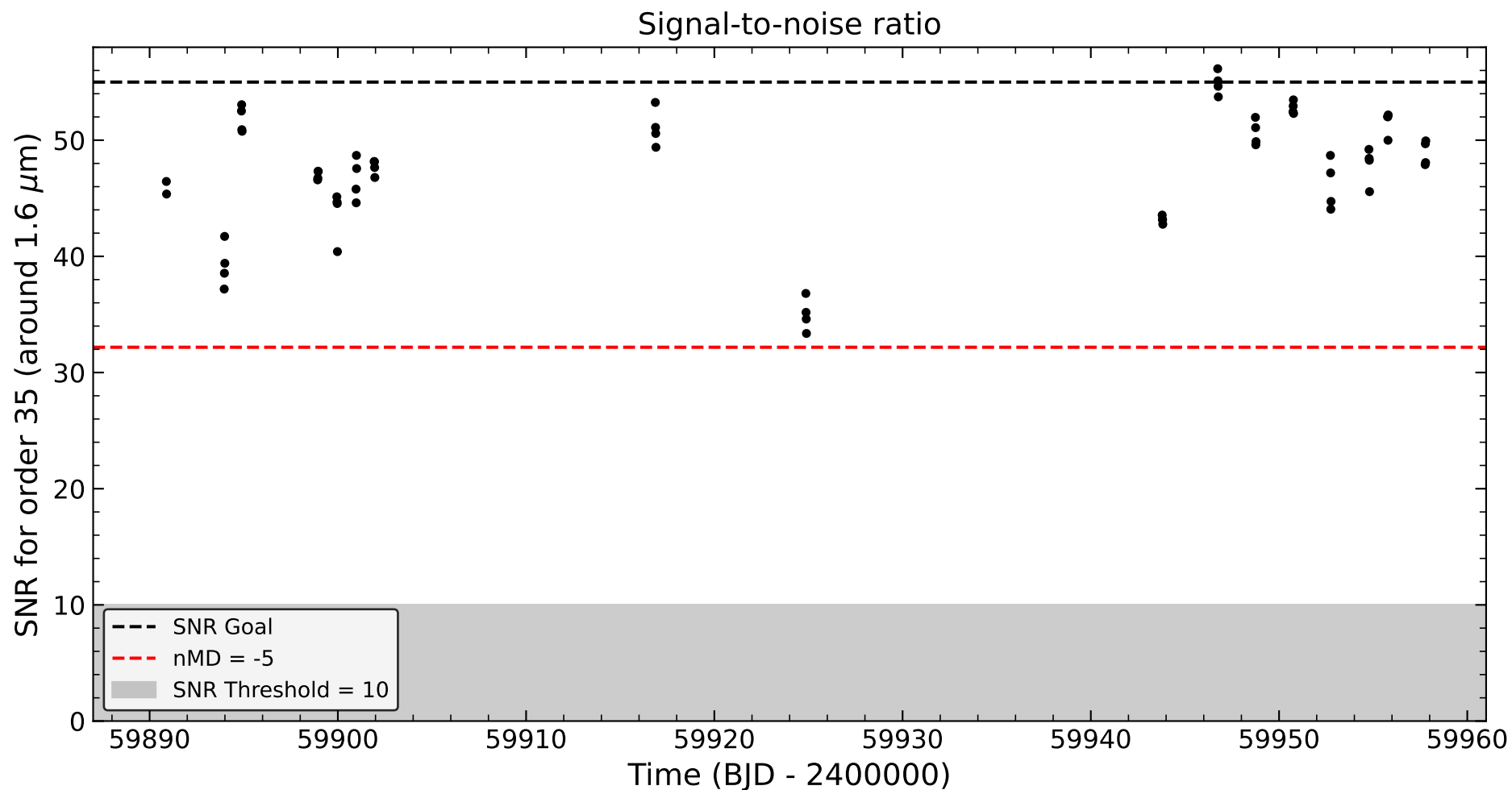
Stellar Parameters

Host name TIC 389900760
RA 01:34:01.76
Dec. 65:30:50.36
Mass (M_{\odot}) 0.21
Radius (R_{\odot}) 0.24
Lum. (L_{\odot}) 0.00531
Teff (K) 3179
Spect. type **M4V**
Dist. (pc) 32.18
V 15.65
Gaia 14.19
J 11.10
H 10.45
K 10.21

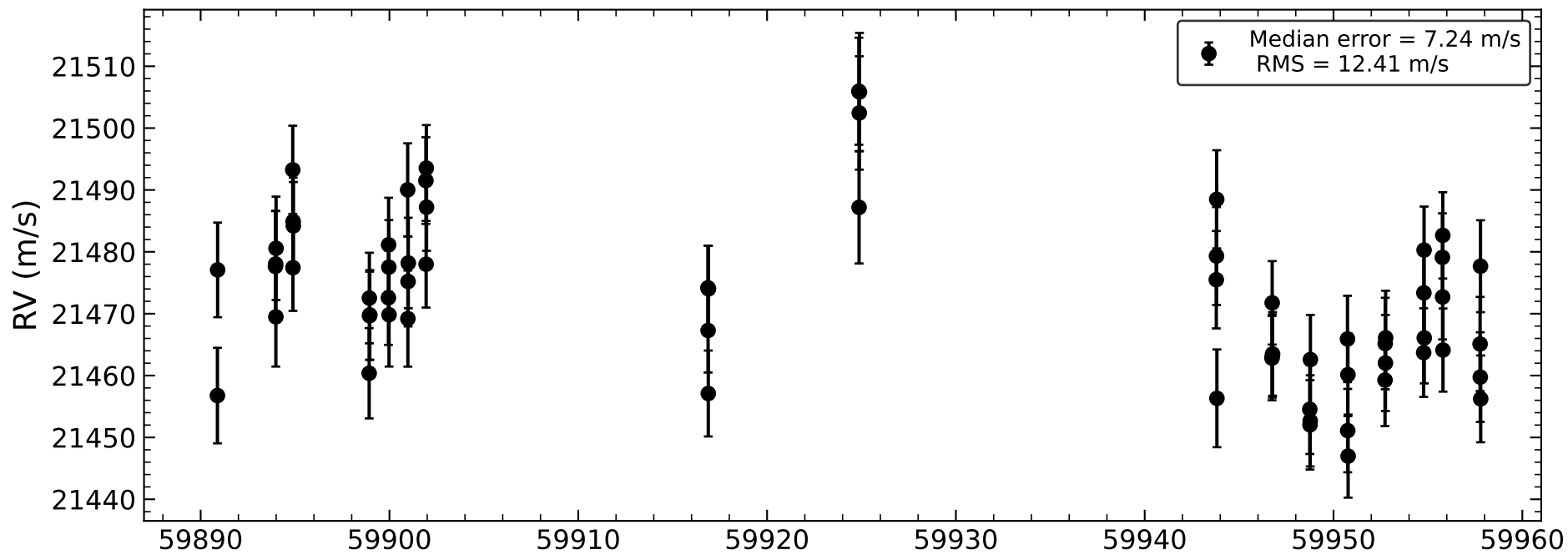
Planet Parameters

Name TOI 2120.01
Mass (M_{\oplus}) **7.45**
Radius (R_{\oplus}) 2.63
Density (g/cm^3) **2.2**
Period (days) 5.79982
Transit depth (ppt) 8.57
Transit dur. (hr) 1.01
Orb. sep. (au) **0.038**
Teq (K) 355
Insolation (S_{\oplus}) 3.74
RV K (m/s) **7.50**
Atmo. sig. (ppm) **644**
TSM **125.2**
ESM **3.7**

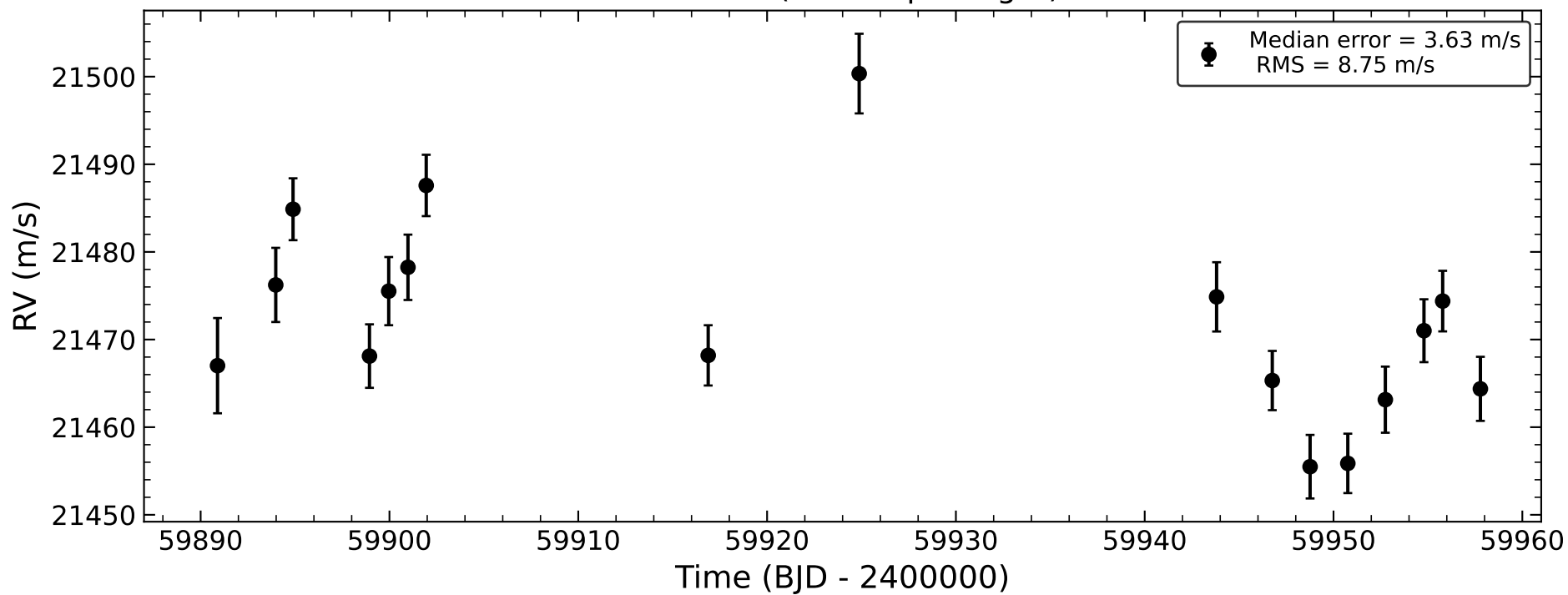
[Link to ExoFOP](#)



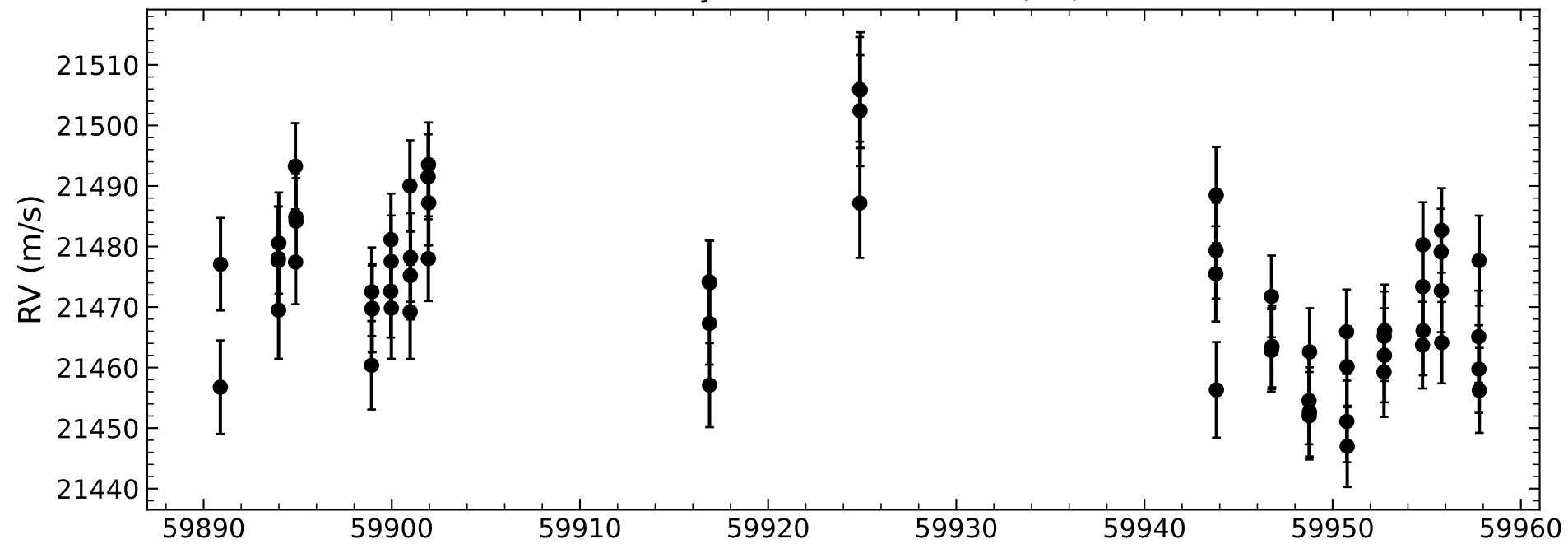
RV Curve



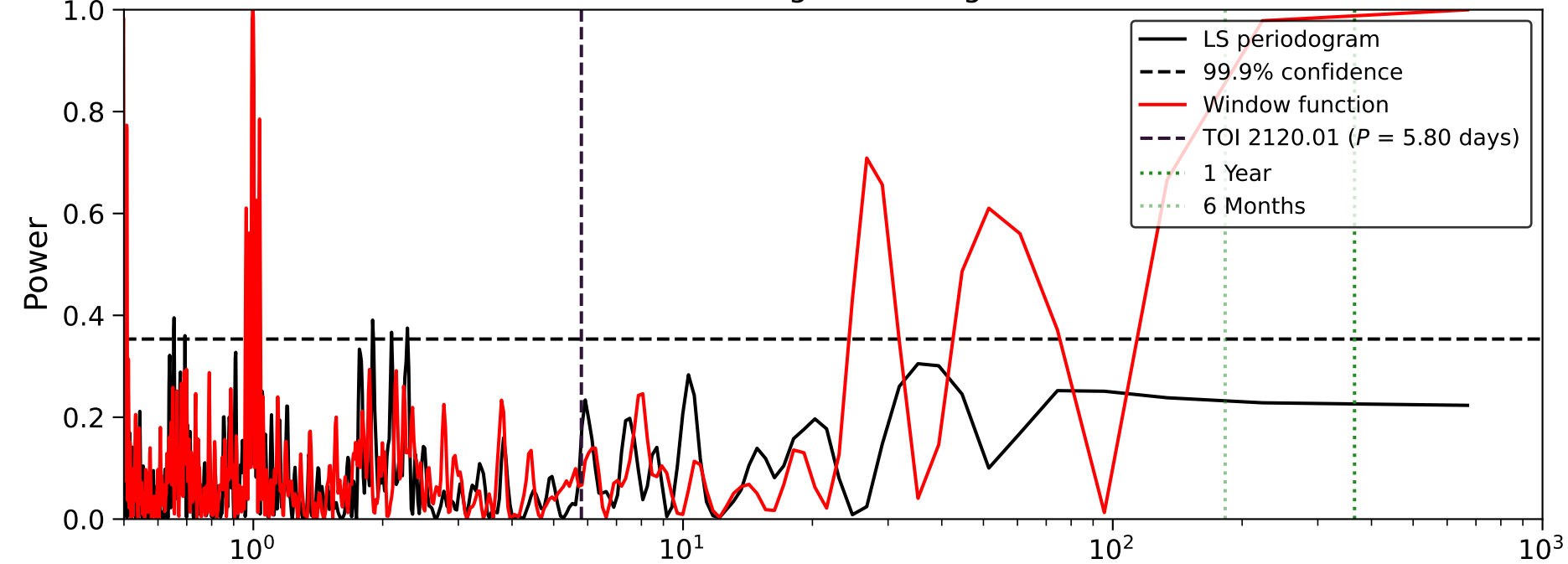
RV Curve (binned per night)



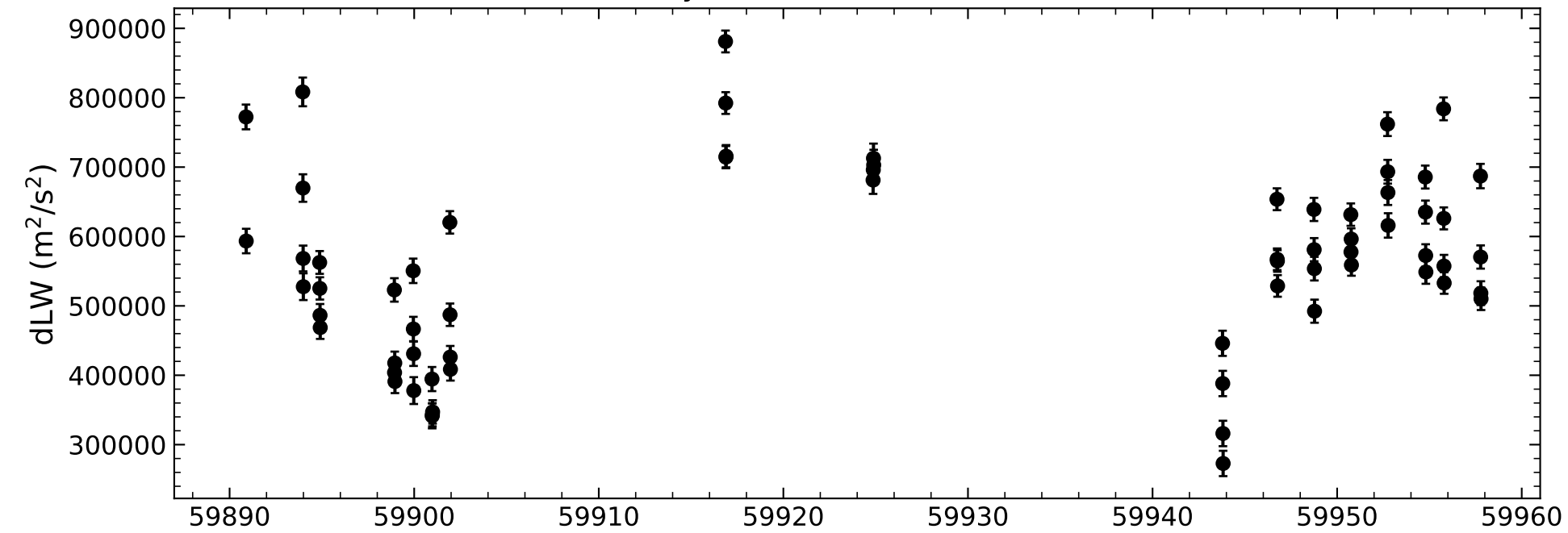
Line-by-line 1st Derivative (RV)



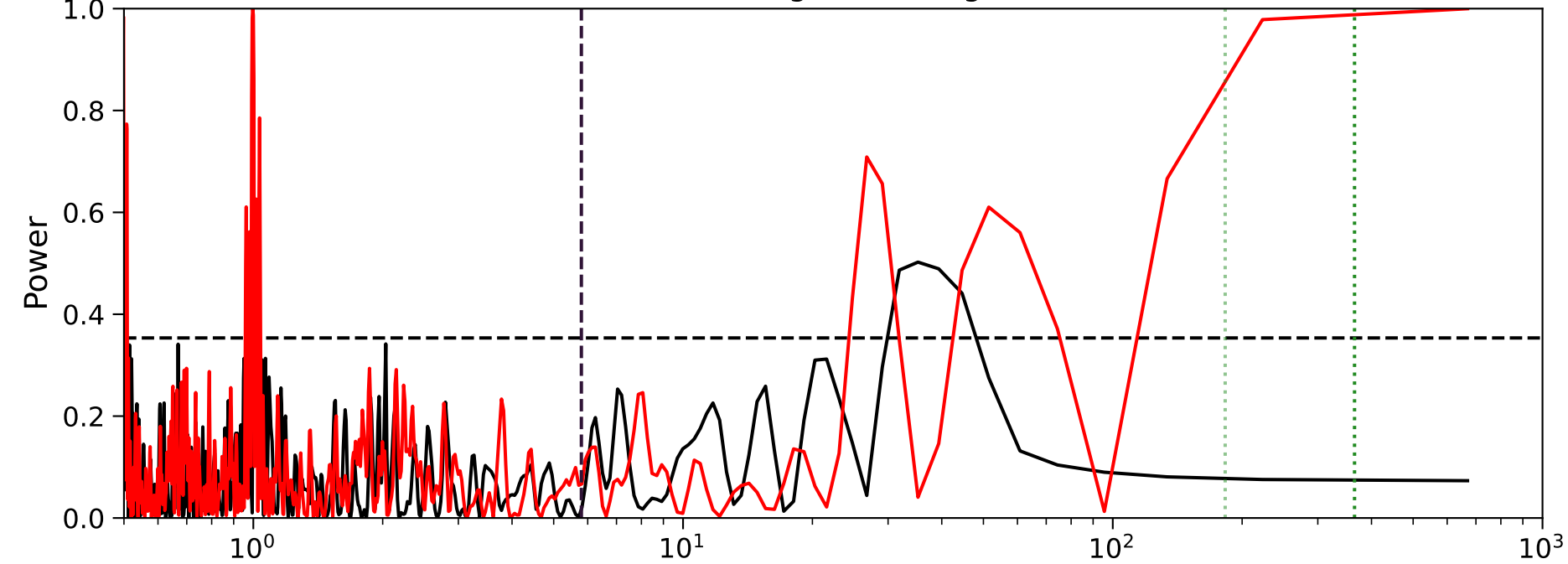
Lomb-Scargle Periodogram



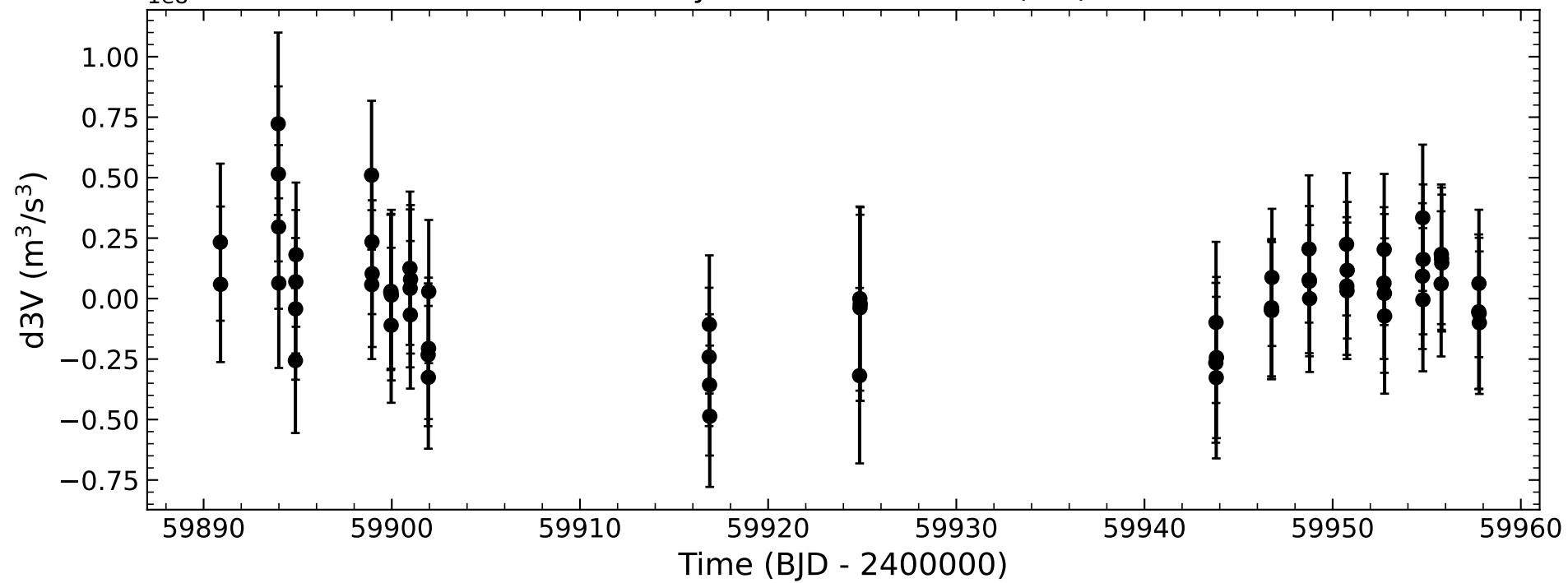
Line-by-line 2nd Derivative (FWHM)



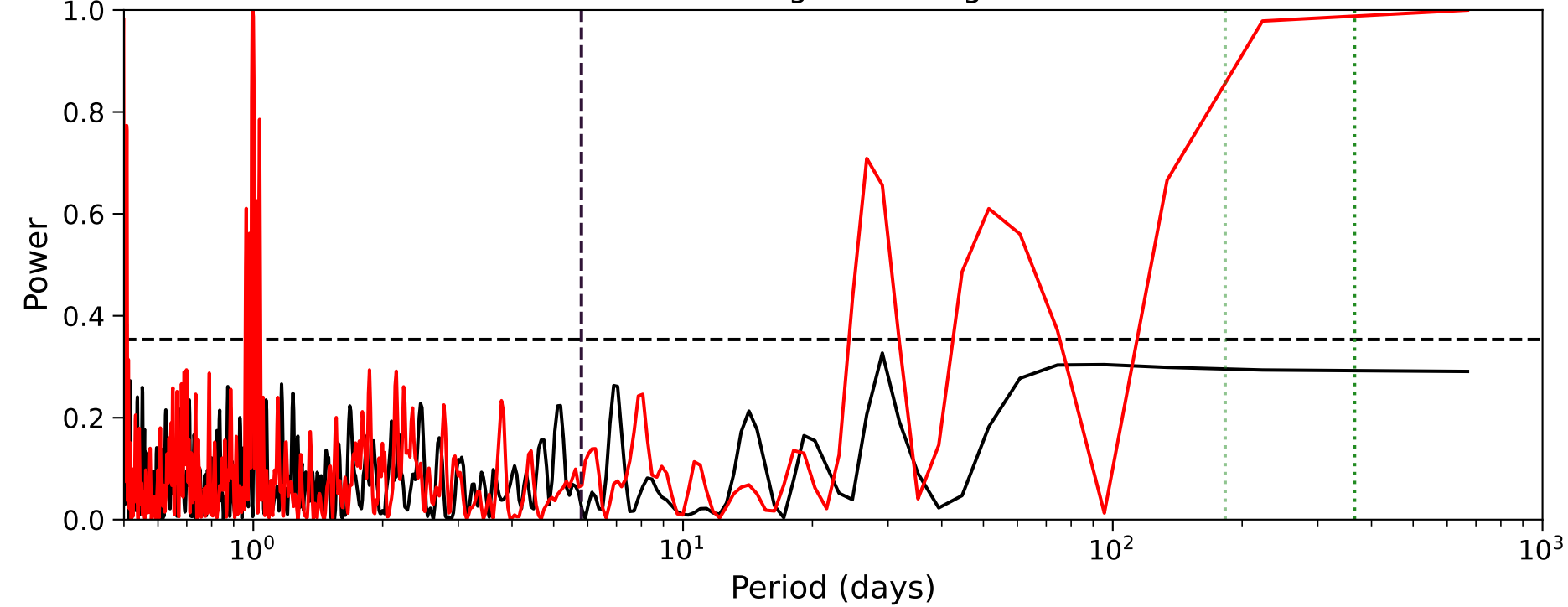
Lomb-Scargle Periodogram

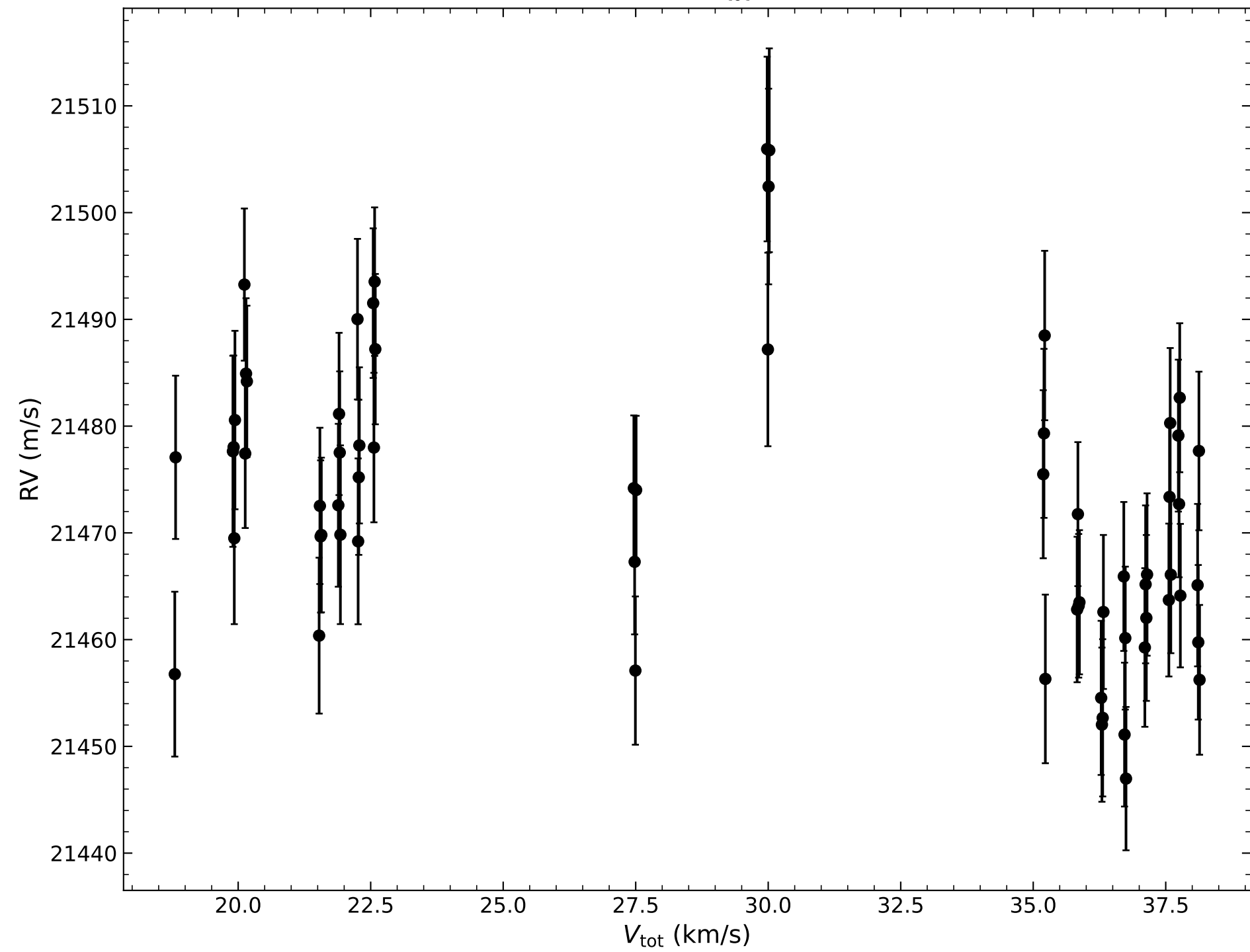


Line-by-line 3rd Derivative (BIS)

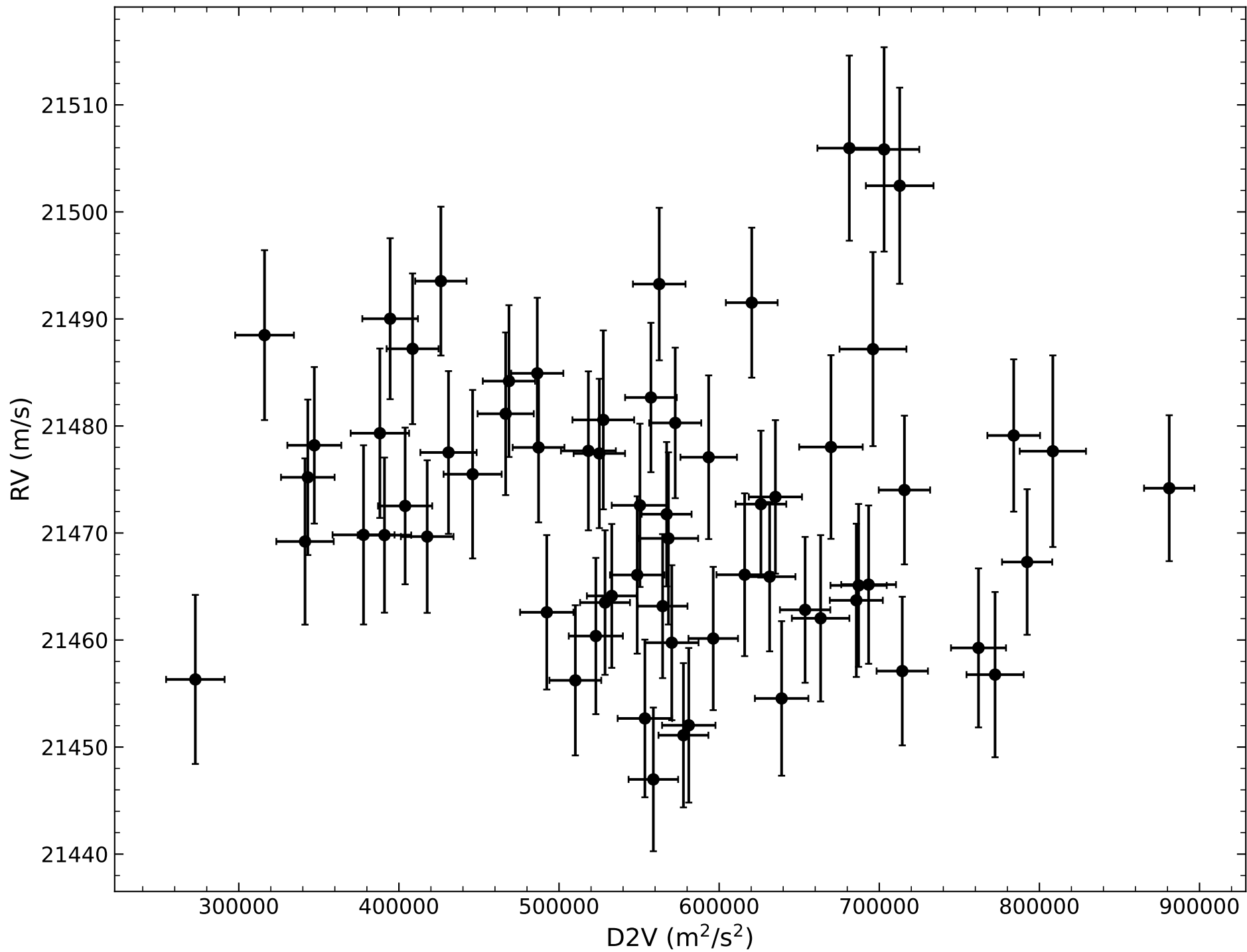


Lomb-Scargle Periodogram



RV vs. V_{tot} 

RV vs. D2V



RV vs. D3V

