Report page ExoTIC-ISM

W17_G102_lc_8200.txt - 8200_clipped

Input parameters:

Number of systematic models: 50
Wavelength mid point = 8197.85966782298
Wavelength half width = 95.09852813007092

Planet parameters:

Rp/R* = 0.1255
Epoch (MJD) = 58021.48064883803
Inclination (deg) = 86.93051272857655
Eccentricity = 0.0
Omega (deg) = 0.0
Period (days) = 3.7354850226
a/R* = 7.025

Stellar parameters:

FeH (dex) = -0.25
Teff (K) = 6550.0
log(g) (cgs) = 4.2

Output parameters:

Limb-darkening coefficients:

C1 = 0.8930893903174474
C2 = -0.7909427699349327
C3 = 0.7800398740616332
C4 = -0.27844197081941136

Top five systematic models by their weight

Check the chi-squared values and the AIC evidence for reasonable fits.
If the chi-squared values far exceed the DOF then it is likely that the input data contains additional noise, double check the spectral extraction.
Model numbers = [36 40 41 37 42]
DOF = [46. 46. 45. 45. 44.]
Chi-squared = [53.37734744 53.50806372 52.70880172 52.81814284 52.00282466]
AIC evidence = [316.36317644 316.29781829 316.1974493 316.14277874 316.05043783]
Weights = [0.09298263883507316 0.08709980570666273 0.07878208749545822 0.07459064495888305 0.06801132168270974]
SDNR = [411.22093147 412.17704273 408.73730155 409.12749076 406.07695818]

Top model Noise Statistics:

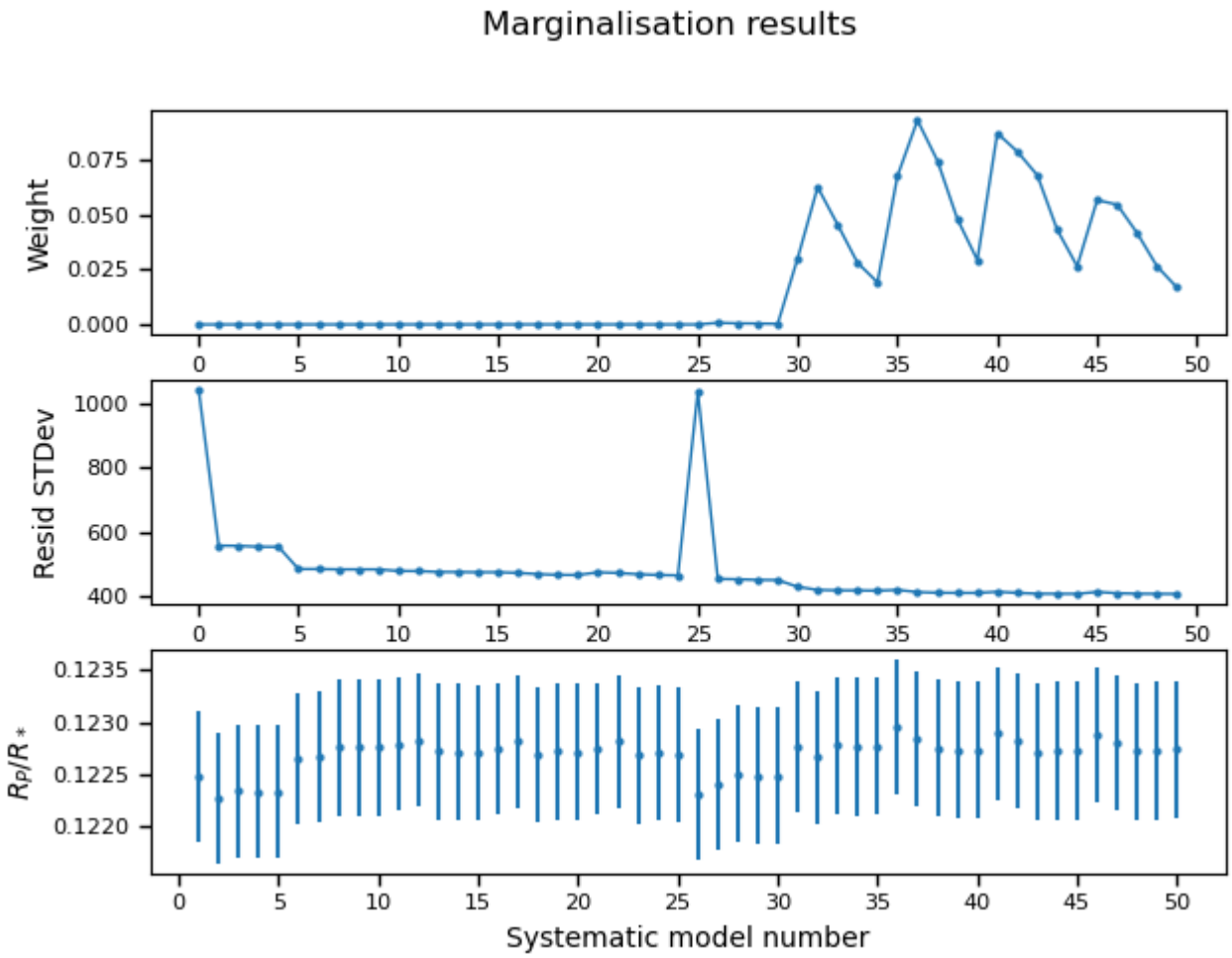
White noise = 0.0
Red noise = 0.0
Beta = 1.0
If the red-noise is significant it means the data is poorly fit by any of the systematic models. It is recommended that the input lightcurves are checked for additional noise sources.

Marginalised parameters:

If None, parameter was not fit for.

Rp/R* = 0.12278676073581249 +/- 0.0006609621076613969
Epoch (MJD) = 58021.47789631392 +/- 0.0006700189069002411
Inclination (rad) = None +/- None
Inclination (deg) = None +/- None
System density (Ms+Mp/R^3) = None +/- None
a/R* = None +/- None

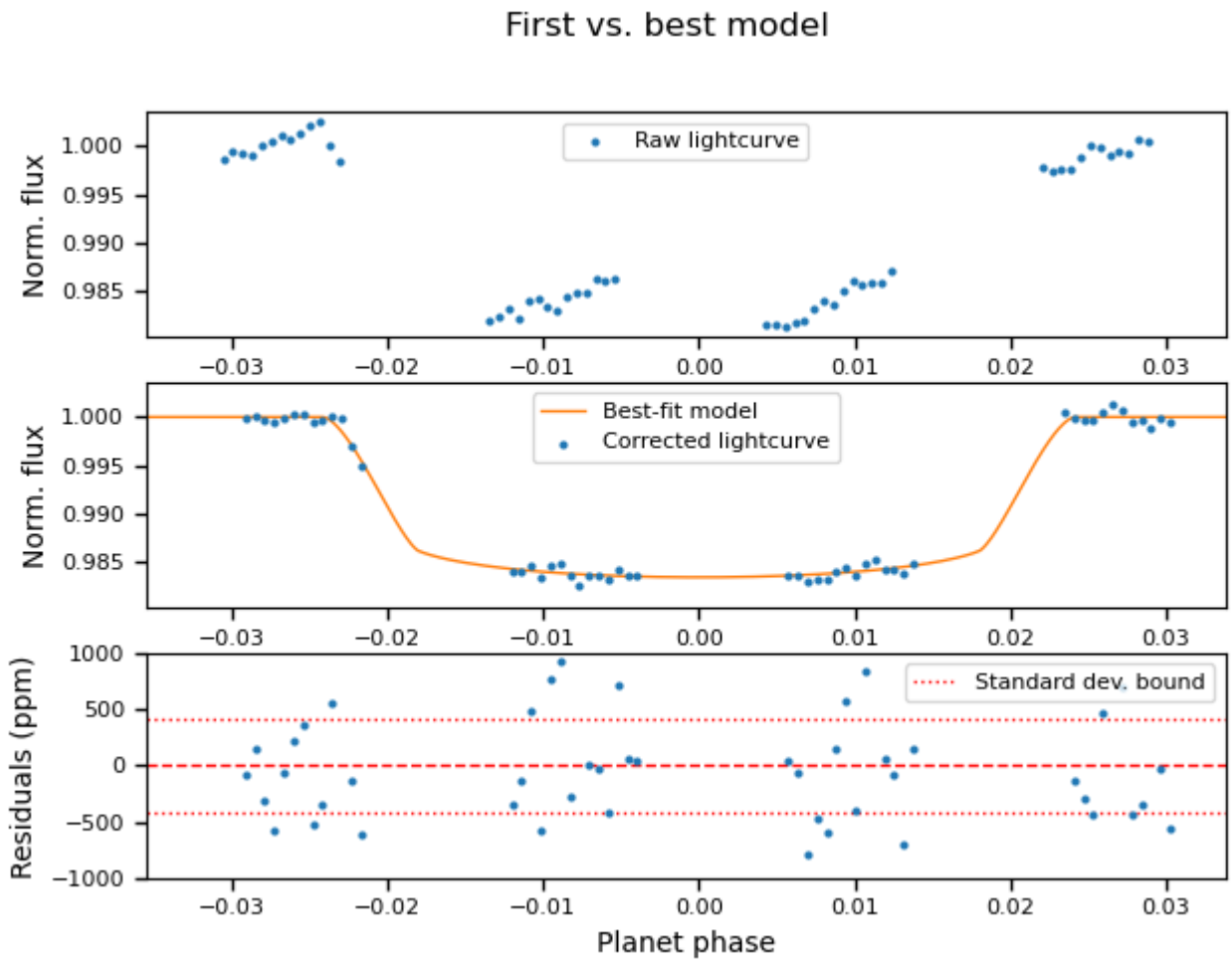
Systematics



Top: Evidence-based weight associated with each systematic model when fit with the data. *Middle:* Standard deviation of the residuals after correcting for each systematic model. *Bottom:* Radius ratio

measured from the transit depth when the light curve has been corrected using each systematic model. *If present, grey crosses mark discarded systematic models (poor AIC evidence).*

Lightcurves



Top: Input lightcurve with no systematic model correction applied. *Middle:* Lightcurve corrected by highest weight systematic model plotted with the smooth planetary transit model centred on the mid-transit time. *Bottom:* Residuals and uncertainties associated with the middle panel lightcurve. The upper and lower standard deviation bounds are shown in dotted lines relative to zero.