# Report page ExoTIC-ISM

## W17_G102_lc_11110.txt - 11110_clipped

### Input parameters:

Number of systematic models: 50
Wavelength mid point = 11110.252091806407
Wavelength half width = 106.98584414633115

#### 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 = 0.8623509863121901
C2 = -0.8410410073231982
C3 = 0.7946870632695371
C4 = -0.28377224752996133

#### 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 = [43 44 48 38 49]
DOF = [43. 42. 42. 44. 41.]
Chi-squared = [72.87260424 72.8330881 72.83385303 75.29634857 72.68105026]
AIC evidence = [331.45267638 330.97243445 330.97205198 330.74080422 330.54845337]
Weights = [0.26792118142140214 0.1657450734826508 0.16568169400872523 0.1314755200119056 0.10846958654370781]
SDNR = [293.60896542 293.53418259 293.54124676 298.36483024 293.25694638]

**Top model Noise Statistics:**

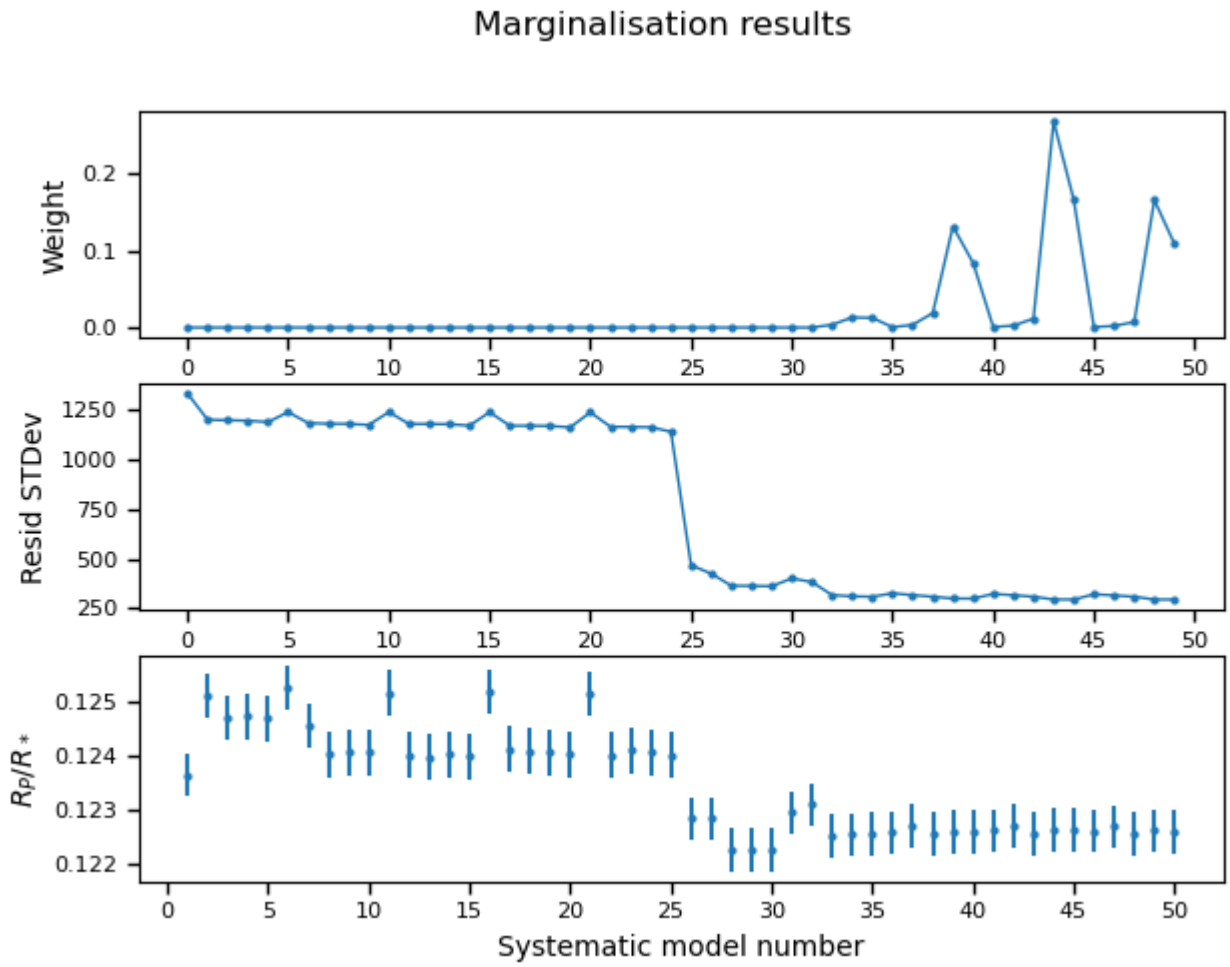
White noise = 0.00040799319812849635
Red noise = 8.093203840089834e-05
Beta = 1.174692074214302
If the red-noise is significant it means the data is poorly fit by any of the systematic models. It is recommended that the input lightcurves are checked for additional noise sources.

## Marginalised parameters:

If None, parameter was not fit for.

Rp/R* = 0.12260900119285571 +/- 0.000401474395312704
Epoch (MJD) = 58021.4799455224 +/- 0.00046196476563274957
Inclination (rad) = None +/- None
Inclination (deg) = None +/- None
System density (Ms+Mp/R^3) = None +/- None
a/R* = None +/- None

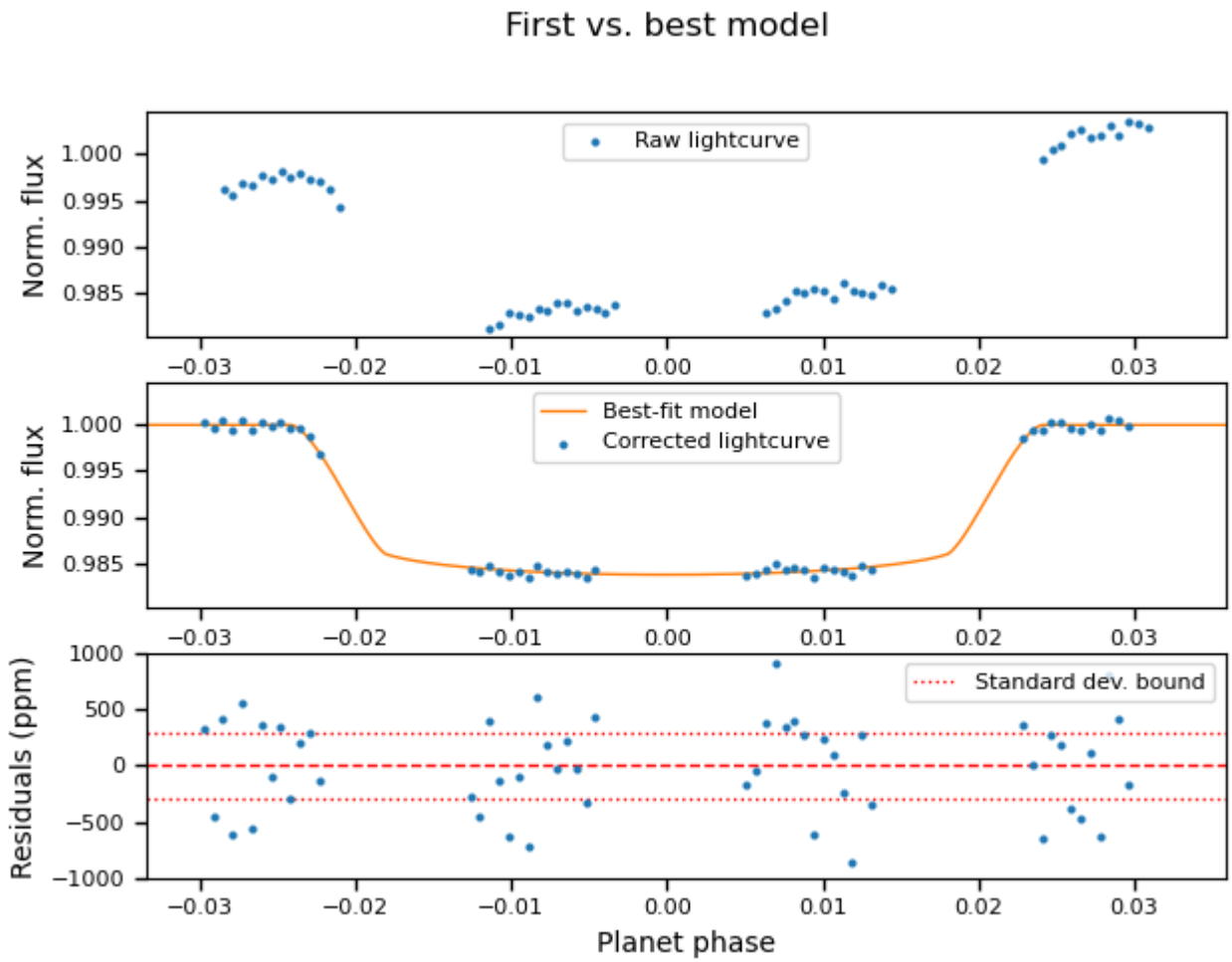
## Systematics




*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.