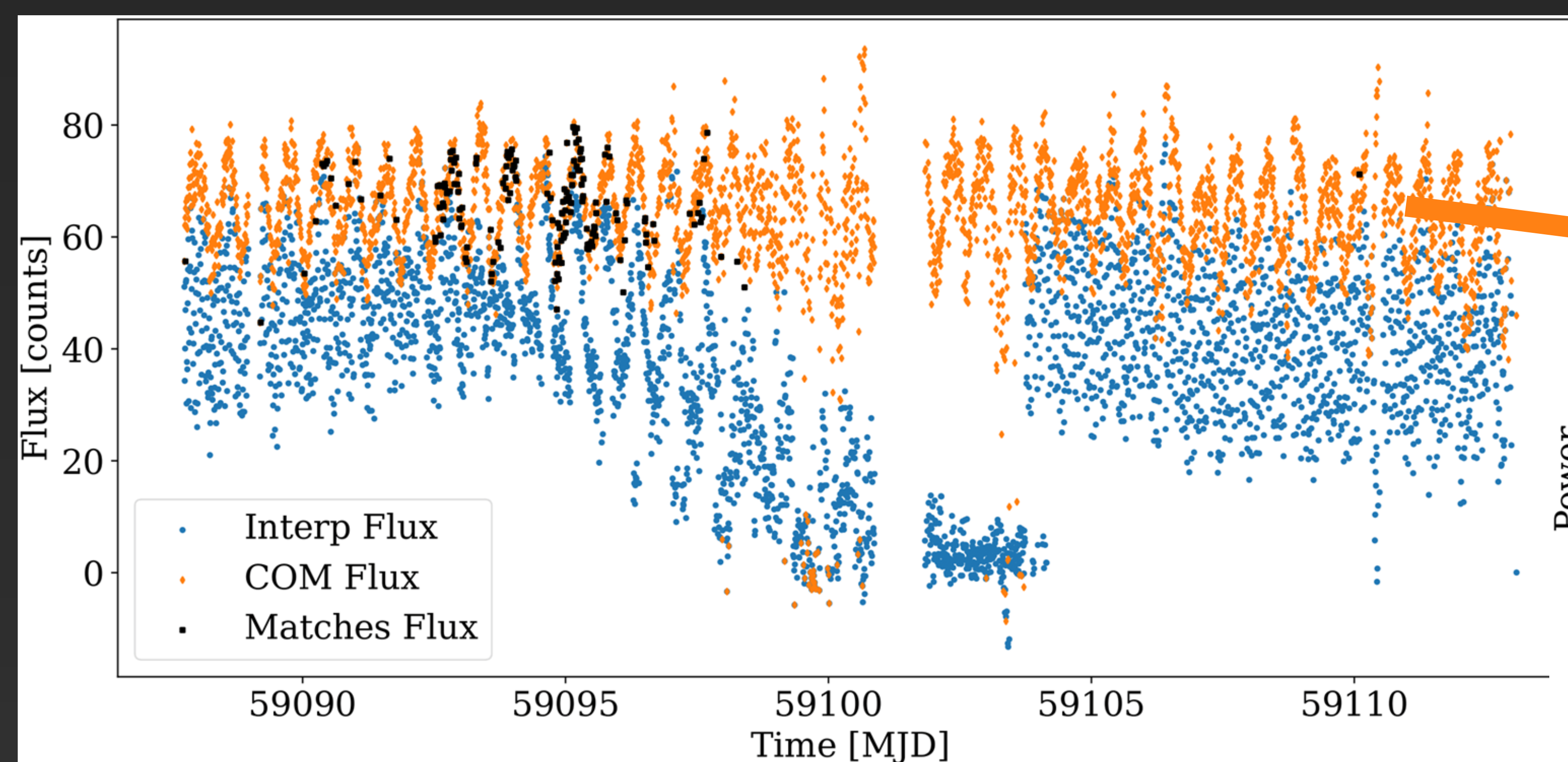
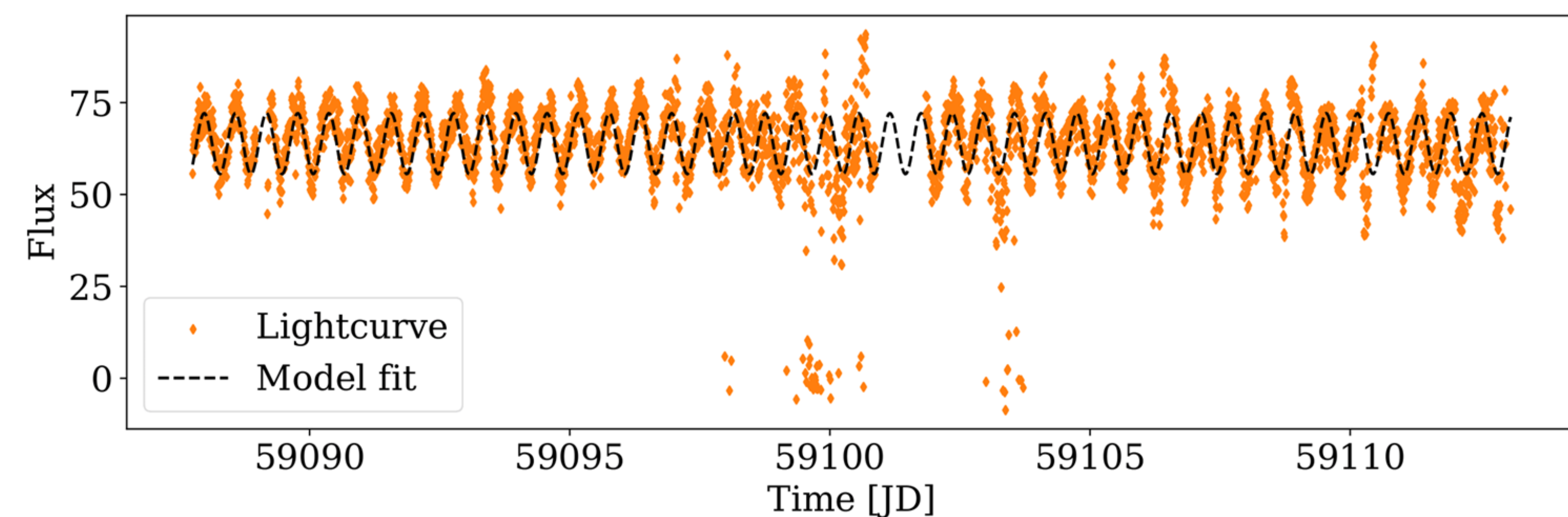
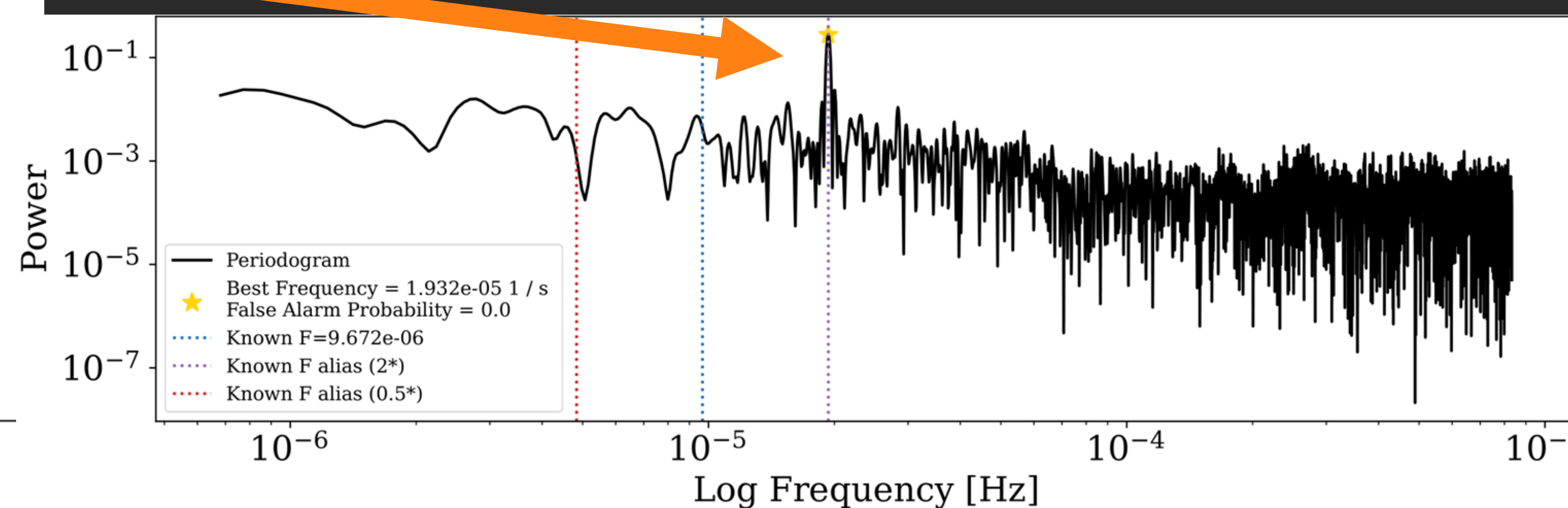


# Detecting asteroid lightcurves and periodograms with *TESSELLATE*

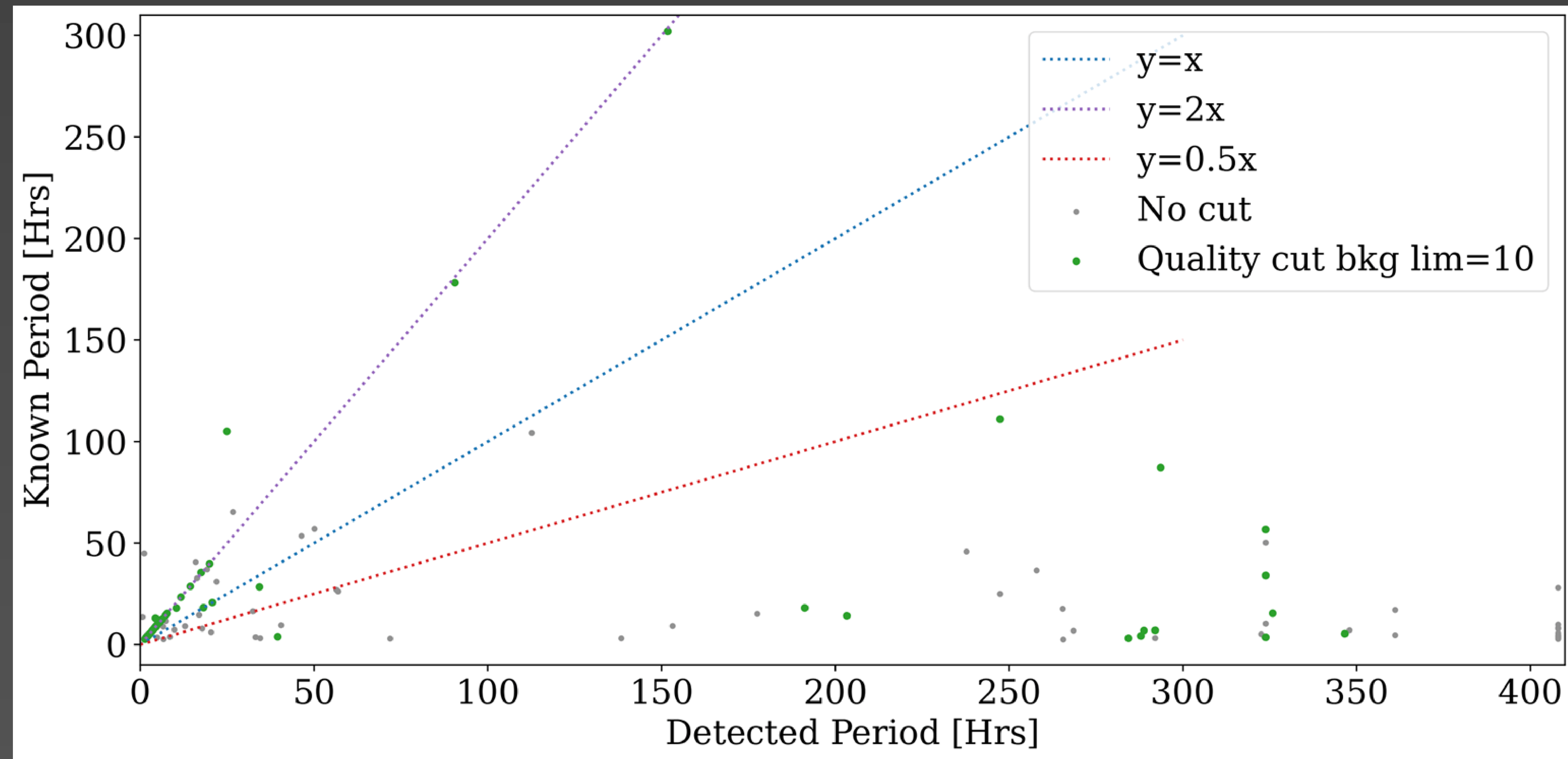


**Figure 1:** Lightcurves of the interpolated positions (blue), COM positions (Orange) and *TESSELLATE* matches (black).

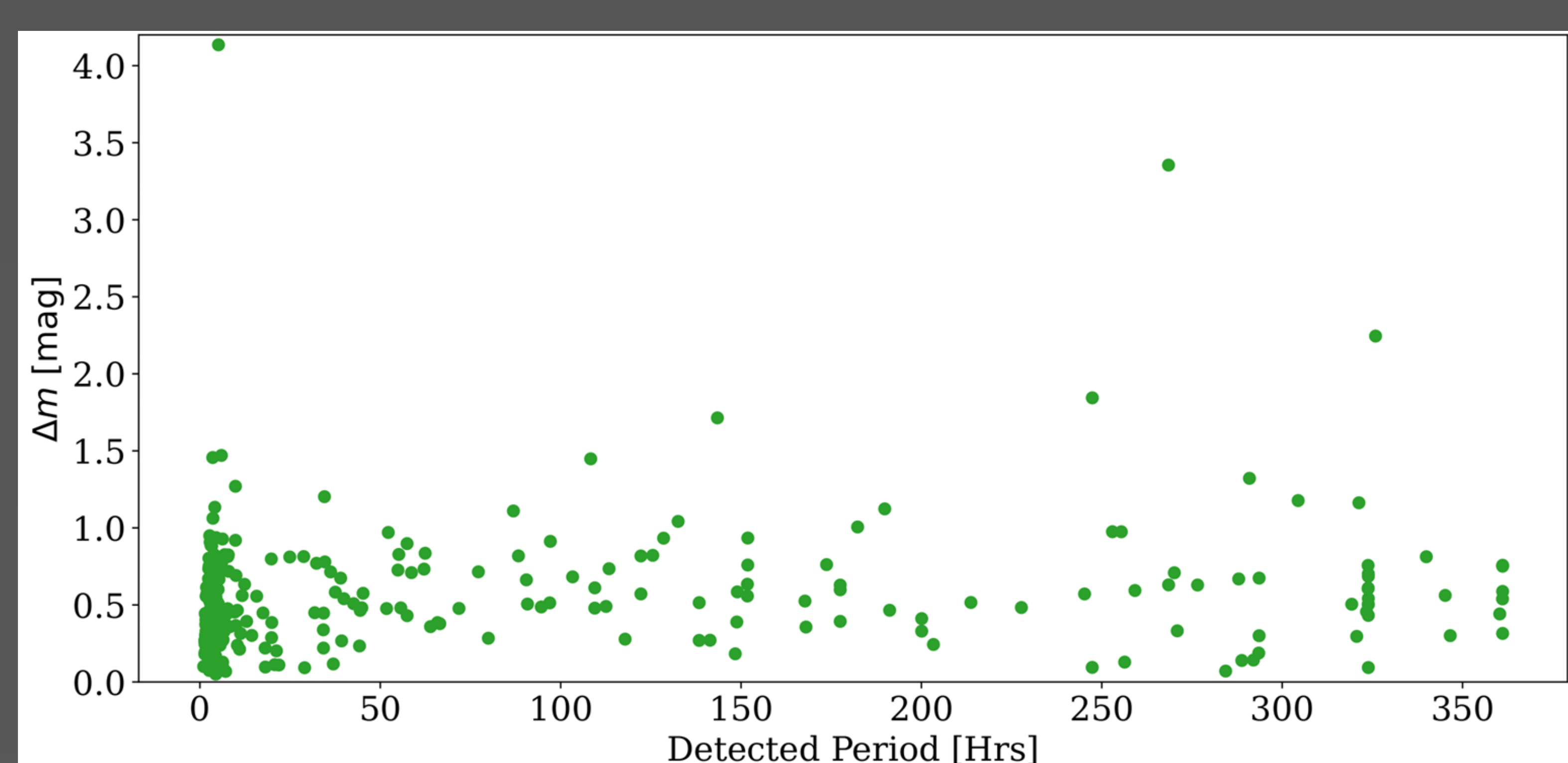


**Figure 2:** Upper Panel: An example periodogram. Lower Panel: The model fit to the lightcurve.

## TESS can give accurate asteroid rotation periods.



**Figure 3:** Comparison of detected period and known period for all the asteroids in the field and the LCDB [6] (grey), and those that passed the quality checks (green).



**Figure 4:** Detected periods against the amplitude variation of all the asteroids that pass the quality checks.

## The amplitude of variation is constant with rotation period.