
Modelling of the secondary eclipses of some KEPLER exoplanets

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Abstract

The occultation of the transiting exoplanet by its parent star will manifest on the light-curve as a shallow secondary minimum. The precise photometry obtained by the KEPLER spacecraft (and other similar space telescopes) theoretically allows us to distinguish the secondary minimum. In their paper, Coughlin & López-Morales (2012, AJ, 143, 39) tried to select KEPLER candidates with potentially deep secondary minima. We have selected several candidates with the deepest secondary eclipses. By combining many short-cadence light-curves we have produced a smoother light-curve with a stronger signal and made the secondary minima more distinct. This allowed us to measure the depth of primary and secondary minimum and to determine stellar and planetary radius.

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